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ABSTRACT

This manual, which was developed as a reference and resource guide for program directors and teachers of young children, describes high standards for health policies. Also provided are information based on current research and recommendations from experts in health and early childhood education. The manual contains 7 sections and 19 chapters. Section A, which concerns the promotion of health in programs for young children, focuses on policies, providers, records, and health education in early childhood programs. Section B discusses the creation of a healthy environment, sanitation standards, diapering, and toilet learning. Section C deals with safety and first aid, and also covers transportation and emergencies. Preventive health care and dental health for children and adults are considered in section D. Section E deals with nutrition in programs for young children. Section F focuses on special health issues, including children with special needs, child abuse and neglect, lead poisoning, and chronic health conditions. The concluding Section G provides guidance for managing illnesses, and discussion of infectious diseases and care of the mildly ill child. Appendices provide lists of national resources for health and safety information and children's picture books about health, nutrition, and safety. (RH)

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# Healthy Young Childre

## A Manual for Programs

### Editors

Abby Shapiro Kendrick, Roxane Kaufmann,
and Katherine P. Messenger

### Consulting Editors

Francine H. Jacobs and Serena Mailloux, M.D.

A cooperative effort of
Administration for Children, Youth and Families
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Massachusetts Department of Public Health
National Association for the Education of Young Children

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# Preface

As program directors and teachers, you must protect and promote the health and well-being of the young children, staff, and families in your care. This manual was developed as a reference and resource guide to help you meet your health and safety responsibilities. You can achieve major health gains by taking several simple steps. Washing hands, for example, is the single best thing people can do to prevent the spread of disease. When you include toothbrushing in the daily routine, children learn good habits for life. You may prevent a tragic injury by conducting frequent site safety checks. Your careful, regular observations of children may reveal health problems that can respond to early treatment. Specific information, procedures, and recommendations on each of these topics, as well as on many others, are provided here.

The information included reflects the most current research and recommendations from experts in the fields of health and early childhood education. In such rapidly changing fields, however, new information and approaches are constantly emerging. You are encouraged to gather such information and add it to the topics in this document.

This manual has been extensively reviewed by both health and early childhood professionals and describes very high standards for health policies. None of the recommendations was made lightly or without good evidence that it is important to protect the health of children and staff. You may find it impossible to meet some of these standards in your program. Implement as many of these recommendations as you can, but don't expect to change everything overnight. Plan carefully and thoroughly before you make any changes.

You may find that some of our recommendations differ from materials you have received from the Centers for Disease Control (CDC) or from your own health consultants. Because there is not complete agreement within the medical community about specific procedures and treatments, you will have to make the best decision you can after hearing many points of view. Your state department of public health can serve as a valuable resource for information and guidance.

*Healthy Young Children* was designed as a reference document and contains a great deal of information. In order to use it effectively, you should read it through at least one time to become familiar with the contents and to complete information for your program.

You may copy any part of the manual for staff, parents, your health consultant, or community agencies, but be sure to acknowledge the source of the material when you reuse it.

# Acknowledgments

Hundreds of people have been involved in the preparation of this document. The need for a comprehensive guide about health in programs for young children has been acute. The Preschool Health Program, Division of Family Health Services, Massachusetts Department of Public Health first tackled the enormous task of pulling together material for child care workers in that state.

At the same time, the Georgetown University Child Development Center and the National Association for the Education of Young Children were also seeking to publish material on child care health. A grant from the Administration for Children, Youth and Families and the Division of Maternal and Child Health of the U.S. Department of Health and Human Services was awarded to Georgetown to develop materials on the topic. Georgetown and NAEYC were fortunate to learn of the work from Massachusetts and collaborated with Abby Shapiro Kendrick to adapt the original material, written especially for Massachusetts, for a national audience. In addition to the Massachusetts edition, a limited edition was made available through Georgetown University Child Development Center. Since those volumes were released, the material has been revised further and updated by the National Association for the Education of Young Children.

Any undertaking of this magnitude necessarily involves many people with expertise in different areas. Some wrote major sections of the book, others served as reviewers, and still others were consultants. Several provided editorial and word processing services. The editors gratefully acknowledge the contributions of these and many other people and organizations whose untiring efforts made this ambitious volume a reality.

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# Section A

## Promoting health in programs for young children

### Major concepts

- **The health program must be carefully planned and carried out through comprehensive health policies that integrate community resources.**
- **All staff and parents must be aware of and fully understand your program's health policies.**
- **The experiences of children and families in your program can lay the foundation for future health practices.**
- **Early childhood educators promote better child health by encouraging appropriate health care and offering some preventive health services.**

# 1

# The basics: Policies, providers, and records

## Health policies

Health care policies are the blueprint for thinking about health issues and how they relate to other aspects of your program. They should bring together the recommendations of staff, parents, health experts, and especially your health consultant. You should review and revise the policies each year in response to program experiences and new medical recommendations.

### Tips on writing policies

Write specific and detailed policies. Keep in mind the following questions. WHO (is responsible)? WHAT? WHERE? WHEN? WHY? HOW? Be sure responsibilities are clearly defined. For example, policies about the first-aid kit might be

> The director will purchase all items for the first-aid kit and review its contents every month to be sure all supplies are available. The kit shall at all times contain . . . . The first-aid kit will be stored out of children's reach on the top shelf in the bathroom above the sink. Any teacher who administers first aid to a child must report the incident on the injury report on the day it occurs. The report shall be filed in the child's folder and the center incident log. Parents shall receive a copy as well.

Include parents, staff, and your health consultant in a small committee to write or review/revise your policies. Send the draft to staff, parents, and medical experts for review. Be sure the policies are understood and that all groups are willing to carry them out.

Figure 1-1 outlines topics to include when you write or revise your policies. You should develop policies that work well in your program and that suit your needs. Organize the policies under topics so that they can be easily referenced. You may want to color code or index sections for fast access in an emergency.

Be sure to give copies of your health care policies to all staff, parents, and health consultants. Post a reference copy at each telephone in your center. Make sure everyone is told about policy revisions.

## Staff responsibilities for health

Health policies are an excellent means to protect and promote children's health. Through them you create a healthful and safe environment; practice preventive measures such as washing hands and monitoring the safety of the playground; and educate staff, parents, and children about health issues.

Daily observation of children during a long period of time plays a critical role in identifying potential health problems. While staff members are not expected to diagnose medical problems, they can add to the information used to make the diagnosis.

One of the services early childhood programs provide is to act as a switchboard for health data—receiver, collector, and distributor of health information. The administrator should obtain a medical record and a detailed developmental health history for each child in the program. Both the administrator and teaching staff should become familiar with this information. It is easy to assume a child who appears very healthy has no outstanding health needs. However, if you do not know he is allergic to bee stings, you could be confronted with a shocking and life-threatening emergency if he is stung. Or, knowing that a child has had an extended early hospitalization may help you to understand her separation difficulties or her reluctance to become attached to staff.

Teachers must be trained in first aid and CPR

Figure 1-1. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Children's health records**<br>1. Contents of health record (include forms used)<br>(a) enrollment form/developmental health history<br>(b) physical examinations/immunization status/growth data<br>(c) injury reports<br>(d) medicine log<br>(e) screening/assessment results<br>(f) parent permission slips<br>(g) problem list with information about chronic disease/special needs<br>2. Screenings<br>3. Review/update of health record<br>4. Communication system among health providers, staff, parents<br>5. Protection of confidentiality | | | | | |

## Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Staff health records**<br>1. Requirements for pre-employment and periodic health exams (including who pays)<br>2. Contents of health record<br>(a) health history<br>(b) Immunization status<br>(c) results of initial and subsequent health exams<br>(d) record of injuries at work<br>3. Staff exclusion policies<br>4. Plan for sick leave, breaks, and substitutes | | | | | |
| **Health consultant(s)**<br>1. Tasks<br>2. Backup resources for special situations, e.g., outbreak of infectious disease<br>3. Fee arrangements, if any<br>4. Lines of communication (Who can contact health consultant? To whom does health consultant give advice?) | | | | | |

Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Daily admission**<br>1. Greet child/observe possible health problems<br>2. Communication system between staff and parents (e.g., nap, food, bowel movements, mood) | | | | | |
| **The environment**<br>1. Method for checking and correcting safety hazards, lighting, heating, ventilation, and maintenance problems<br>2. Supervision required in classroom/playground<br>3. Safe storage of poisonous and hazardous materials<br>4. Location of activities in relation to handwashing facilities.<br>5. Disposal of contaminated items and trash<br>6. Changing of diapers/clothing<br>7. Arranging for soiled clothing/bedding to be properly laundered | | | | | |

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22

**Figure 1-1 cont. Topics to include in health policies**

| **The environment cont.** | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| 8. Cleaning the center, including bathrooms, kitchen, play areas, toys; schedule for cleaning; cleaning agents<br>9. Cleaning and storing individual rest equipment<br>10. Purchase of safe equipment and cleaning, pest control, and art materials | | | | | |
| **Ill children**<br>1. Evaluate symptoms<br>2. Contact parent(s) or emergency person<br>3. Reasons for including/excluding ill children<br>4. Decide whether child can attend, will remain in or leave program<br>5. Get medical advice, if needed<br>6. Provide care for ill children who are waiting to be picked up or are included<br>7. Monitor status of ill children who are excluded | | | | | |

Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Medications**<br>1. Determine whether program will accept responsibility for administering medications and which ones (i.e., oral, topical, eye, rectal, nasal, ear, injectable, inhalers)<br>2. Get written parent permission with doctor's orders.<br>3. Storage<br>4. Give medications<br>5. Record medicines given<br>6. Parent/staff communication (e.g., side effects, child's reactions) | | | | | |
| **Outbreaks of infectious diseases**<br>1. Identify the illness<br>2. Communications with involved children's health providers<br>3. Specific measures to prevent spread<br>4. Notify other parents/local health department | | | | | |

## Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Outbreaks of infectious diseases cont.**<br>5. Program's treatment plan, when necessary (e.g., Rifampin for meningococcus)<br>6. Experts to consult<br>7. Maintain up-to-date list of diseases to be reported to state health department | | | | | |
| **Emergency preparedness**<br>1. Post emergency plan near all telephones and exits<br>2. Keep emergency contact person file up-to-date<br>3. Evacuation procedures including special considerations for infants, toddlers, and non-walkers<br>4. Staff responsibilities<br>5. Scheduled and unannounced evacuation drills<br>6. Alternate facility to use until parents can come for children if return to child care site is not possible. | | | | | |

## Figure 1-1 cont. Topics to include in health policies

|  | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Injuries**<br>1. Identity of first aiders<br>2. Assess injuries<br>3. Give first aid<br>4. First-aid procedures<br>5. Type, location, and maintenance of first-aid supplies<br>6. Notify parents<br>7. Emergency transportation<br>8. Write/file injury report<br>9. Special field trip procedures (e.g., portable first-aid supplies, sources of emergency help, copies of consents and emergency forms, safety precautions, additional adults)<br>10. Review injury reports to identify hazards |  |  |  |  |  |
| **Transportation**<br>1. Requirements for vehicle safety restraints for children and adults<br>2. Safety procedures for field trips |  |  |  |  |  |

## Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Transportation cont.**<br>3. Procedures for safe arrival and departure, including escorting children to and from vehicles<br>4. Selection of drivers<br>5. Driver training<br>6. Late arrival/pickup<br>7. Maintenance of vehicles<br>8. Requirements for attendants in addition to the driver | | | | | |
| **Nutrition/food preparation and handling**<br>1. Obtain and use information about child's usual feeding schedule, food habits, vitamin and mineral supplements, food allergies, cultural eating habits<br>2. Manage food services, including food orders, menu plans, food preparation, storage, inventory, and turnover of stock supplies<br>3. Transport/store perishable foods sent from home to program | | | | | |

**Figure 1-1 cont. Topics to include in health policies**

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Nutrition/food handling**<br>4. Special food procedures for infants | | | | | |
| **Dental**<br>1. Daily teeth/gums cleaning procedure<br>2. Store toothbrushes<br>3. Dental first-aid procedures<br>4. Fluoridation program, if appropriate | | | | | |
| **Children's health curriculum**<br>1. Concepts/topics to be taught<br>2. Methods to integrate health into overall curriculum | | | | | |
| **Staff/parent health education**<br>1. Process to assess needs<br>2. Methods (e.g., workshops, newsletters)<br>3. Possible topics to be covered | | | | | |

## Figure 1-1 cont. Topics to include in health policies

| | What is the outcome (purpose)? Or, why should it be done? | Who is responsible? | What is the process? (How will it be done?) | When will it be done? | Where/how and other information |
|---|---|---|---|---|---|
| **Child abuse/neglect**<br>1. Recognizing signs of abuse/neglect<br>2. Documentation of observations<br>3. Procedures for filing reports of suspected abuse or neglect<br>4. Procedures for handling accusations of abuse/neglect by program staff<br>5. Procedures/resources for children who have been abused/neglected | | | | | |
| **Resource and referral**<br>1. Procedure to refer for screening, diagnosis, treatment, or support services<br>2. Resources commonly used for training, curriculum development, screening, treatment, support services, medical consultation, financial assistance | | | | | |

(cardiopulmonary resuscitation), and learn to recognize common childhood illnesses. In addition to obtaining health data for individual children, child care staff must learn how to deal with their specific needs. For instance, asthma is very common in early childhood. If you have a child with asthma in your program, review the history of treatment and current medications. Use reference material to read about asthma's triggers and signs of distress. Ask the parents how the child responds best during the attack. Ask your health consultant or the child's health provider to give you appropriate information. Know what *you* need to do in the event of an attack. With adequate information, you and the child will be able to manage the situation with confidence.

Each staff member must be sensitive, conscientious, and systematic in addressing a child's health needs on a daily basis. Most teachers greet the child in the morning and notice such things as a new haircut or outfit. Look at the child's appearance. Is there any significant change? Through daily observation, you learn a great deal about the child as an individual: typical coloring and appearance, moods and temperament, response to pain and sickness, activity level, and patterns of behavior. Each of these is a vital clue to health.

While you are expected to be observant, you are not expected to be an expert on health. Observe the child, record relevant data, and then report anything unusual to the appropriate person on your staff and to the parents. You cannot and should not offer diagnoses or treatment plans. But health professionals will be able to make better judgments using the information you have provided. Health observation is an important first step before screening, diagnosis, or treatment. These topics are discussed in greater detail in Chapter 9.

### Role of the director or administrator

The administrator is responsible for overseeing all health services, policies, and procedures in your program:

- develop and carry out health policies to protect the health of children and staff
- insure that staff have first-aid training (some states specify the type of first-aid training)
- organize the center, equipment, and materials to prevent injuries and the spread of disease
- exchange health information with parents at children's enrollment
- collect and monitor information for individual health files, including permissions and releases
- be sure children receive immunizations and screenings on schedule
- take appropriate action when children are injured or sick, including contacting parents when necessary
- maintain a working relationship with a health consultant and community health resources
- supervise caregivers to be sure they follow your health policies
- assist families to arrange health care, as requested
- coordinate health education for children, staff, and parents
- maintain a quality food service program
- report suspected child abuse or neglect to the appropriate agency

### Role of the teaching staff

Staff who work directly with children must

- maintain a clean, safe, hazard-free, and healthful environment
- observe children for signs of illness or potential health problems and report any concerns to the appropriate person
- administer medications according to center policy and local health regulations
- assure appropriate care is given to mildly ill children who remain in the program
- provide health education to children, including daily health routines
- supervise children to insure safety
- report suspected child abuse or neglect to the appropriate agency

## Communicating with health providers

### Your health care consultant

**Qualifications and role.** Your program's health care consultant should be a physician, nurse, or nurse practitioner who has pediatric experience and regularly deals with children. It is very important that this individual be familiar with the specific medical and developmental needs of children from birth to 5 years. Look for a consultant who is aware of early childhood and parenting issues, has knowledge of infectious diseases in group settings, and can promote health among children and adults. Ideally, the consultant should be involved in the local community and familiar with community resources for referral, support, and educational materials. The consultant should be able to develop positive relationships with children, families, staff, other health providers, and the community.

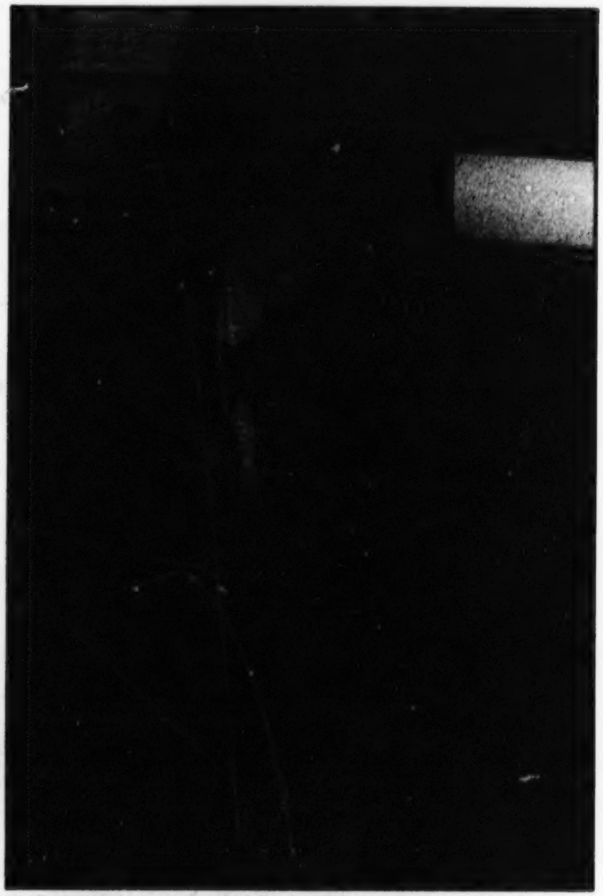
As a minimum, your health consultant should perform three major tasks:

- approve and aid in developing health care policies
- approve the plan for first-aid training of staff
- be available for consultations

In addition, she or he should

- provide information about specific medical issues
- provide advice about group problems such as outbreaks of infectious disease or general health issues
- explain and advocate for the program's health policies with parents and/or family health care provider
- review the overall plan for staff and parent training on health issues and provide training when appropriate
- have access to other medical resources to assist in areas beyond her or his expertise

While it is tempting to seek the consultant's advice about individual cases, it is better to use her or his services for broad issues and policies that affect the group or program.



Francis Wardle

*Information each child's health care provider has learned about the child's medical status, personality, and family strengths should be shared with your program.*

**Communicating with your consultant.** Ideally, your consultant should be in regular contact with your program, not just for emergencies. Invite your consultant to visit often to learn more about the program and your children so as to make the most effective suggestions on such topics as safety issues, child interactions, or sanitation procedures. The relationship with your consultant should be flexible so that needs can be addressed as they arise. Be sure to share this manual with your health consultant.

**Where to find a consultant.** It is not always an easy task to find a qualified health consultant. If you are looking for a consultant, this resource list may be a good starting point:

- neighborhood or community health centers
- local health clinics or hospital pediatric departments
- public health nurses
- visiting nurse associations
- private health providers (e.g., pediatricians, pediatric nurse practitioners, family doctors, health maintenance organizations)
- regional pediatric societies or state chapter of the American Academy of Pediatrics (AAP)

Remember to be clear from the beginning about your needs, expectations, and ability to pay for services.

### Children's health care providers

In providing health care for the child, each family's health care provider has learned about the child's medical status and personality as well as family strengths. This wealth of information should be shared with your program. Likewise, health care providers could learn more about the child's growth and development from your extensive observations.

To encourage good communication about the children, set up a system to exchange information. One system might be to mail each child's periodic progress reports (with parental permission) to the family's health care provider to keep her or him up to date on the child's development from your perspective. You might also suggest that the health form provided to your program include developmental information or identify health issues. (See Chapter 9, Preventive health care, for more information.)

The American Academy of Pediatrics (1984) has outlined these common topics for communication

between physicians and early childhood educators:
- current state of health and nutrition, including management of colds, diarrhea, bruises, chronic illness, handicapping conditions, and appetite
- growth patterns and their significance
- hearing and vision (e.g., the child with frequent ear infections or the child who needs glasses but doesn't wear them)
- patterns of development, fine motor skills, communications, self-care, interaction with adults and children, and types of play
- family involvement to maintain positive parent-child relationships
- child's initial and current adjustment to the program

**All communication with health care providers concerning individual children must be done only with parents' permission.**

### What if medical experts disagree?

Some information about the health of young children in groups is so new that many health care providers have not yet been trained in current recommendations. Some research is so new or limited that it remains controversial. Therefore, this manual presents some recommendations that may differ from what you have been told by your health consultant. This may be confusing and frustrating. As with all policy decisions, you will have to weigh the facts and rationale and make the best decision for your setting at that time. If you receive conflicting opinions, follow this advice:

1. Try to work out your policies with your health consultant before difficult situations arise (e.g., how to handle Hib disease or diarrhea before an outbreak occurs). Share these policies with parents.
2. When difficult questions about health or infection arise, ask your health consultant for help.
3. If you have additional questions or conflicts, (e.g., between your health consultant and a child's pediatrician) contact your local board of health or your state department of public health. They have the legal responsibility to make decisions about health issues for groups of people.

### Other community resources

It would be helpful to identify the agencies and individuals in your area who can assist the children, staff, and families in your program. You may want to keep a resource file for handy reference when you want additional information, training, and referral services. The following list will help you get your file started.

- child protective agencies
- colleges and universities
- community health centers
- community mental health centers/state department of mental health
- County Extension Service
- department of public health/regional public health offices
- department of social services
- Food Stamp program
- hospital and health clinics
- local board of health or health department
- library
- medical or dental society
- physicians and other health specialists
- poison control centers
- public schools
- voluntary and service organizations
- Women, Infants and Children program (WIC)

## Keeping health records

Maintain a complete, up-to-date health record for each child enrolled in the program. Make this health record available to the child's parents in case the child leaves the program or the program closes. Establish clear policies about confidentiality. No information may be released by the program without specific permission from the parent or guardian.

### Contents

The health record should contain at least the following information:
- telephone numbers where parents and at least two emergency contacts can be reached at all times (Figure 8-3)
- the name of the child's regular health care provider, address, and telephone number
- child's pre-admission medical examination form, including immunization status
- developmental health history (Figure 9-3)
- notations about allergies, special diet, chronic illness, or other special health concerns
- emergency transportation permission slip (Figure 8-3)
- all permission slips authorizing non-emergency health care and giving medications
- results of all screenings and assessments
- reports of all injuries or illnesses that occur while child is present in program
- medication logs
- reports of referrals and follow-up action

- notes about any health communication with parents or health providers
- written correspondence about the child's health
- health observations of staff

The record should be reviewed periodically to be sure that it is up-to-date and that staff are familiar with its contents.

### Confidentiality

Confidentiality of health records must be maintained to protect the child and family. Use the following guidelines when developing or reviewing your confidentiality policy.

- Health records must be kept away from public access and unauthorized review.
- Information may not be sent to anyone without parental review and consent.
- Phone requests for information are not acceptable unless the parent has previously instructed you in writing to release information or given witnessed phone consent (by use of an extension line).
- Information collected by others and forwarded to you with parental consent becomes part of your record and thus the responsibility of the program.
- All releases of information should be properly logged.
- Parents have a right to see all information in their child's file.
- Parents must be made aware of the nature and type of all information collected and how it will be used.
- Though parents may ask to speak to you in confidence, you must receive this information in a responsible manner. This is particularly true in relationship to child abuse. Your primary responsibility is to protect the child.

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# 2

# Health education in programs for young children

During the early childhood years, children form habits and attitudes that can last a lifetime. We know that health education can help establish good habits such as eating low sugar snacks, exercising regularly, avoiding poisons, and choosing other positive lifetime health behaviors.

Health education works best in the framework of a healthy environment and healthy adult behavior. Your program should follow healthy routines such as frequent handwashing and toothbrushing. It should be safe and organized so that children feel secure and cared for. All people, adults and children, must respect other people and materials. Your health education program will not make sense otherwise.

To create a healthy environment, all staff should be models of good behavior. If adults talk about how we need to take care of our bodies, but sit in the kitchen smoking, drinking soda, and munching candy, children will recognize the contradiction. Adult behavior, attitudes, and appearance all affect children's learning.

Your program can promote good health by providing information and activities for children, staff, and parents, addressing the same topic with all three groups at the same time. The child health curriculum will be more successful if adults are involved in the process and can reinforce the ideas and practices being taught. In addition, adults themselves will also gain valuable health and child development information.

## Health curriculum for children

### How to include health learning

Health activities should fit into the natural flow of the program throughout the year. Routines such as brushing teeth, handwashing, careful food handling, and good nutrition should happen everyday. An occasional puppet show or filmstrip is not enough.

When you know what you want to teach, you can capture the teachable moments when children are most likely to learn. For example, when a child is sitting in your lap with the sniffles, talk about taking good care of your body when sick (rest, drink liquids). When a child is going into the hospital, that is a perfect time to set up a hospital corner and to read hospital books. Spring is a natural time to talk about growing foods and which foods are good to eat—plant a garden if you can. Talk about sticky and sweet foods while you're brushing teeth.

Learning always has more meaning when it

- is concrete
- is geared toward the skills and interests of the children
- fits into the rest of the children's learning and understanding
- is presented in many different ways—books, discussions, free play, group activities, field trips, films
- is tied into all areas of the curriculum—science (growing food), cooking, dramatic play (hospital play), art (making a collage of pictures of ways to exercise)
- is strengthened through practice

### What to include

Health education should be interpreted in the broadest sense—teaching children about well-being. Your health education program should focus not only on physical health and safety, but also on topics such as emotional health, growing and changing, and the environment. You should provide children with an opportunity to learn about personal health, the health of those around them, and their world. Ideally, your health education plan should draw upon the resources of teachers, parents, nutritionists, mental health specialists, special needs staff, and others, including community agencies and resources. Many groups have materials and teaching ideas especially for young children.

These are some broad topic areas that can be included in your health curriculum.

- growth and development
- similarities and differences
- families (including cultural heritage and pride)
- expression of feelings (verbal and physical)
- nutrition
- dental health
- personal hygiene
- safety
- physical health
- awareness of disabilities
- environmental health

## Health education for staff and parents

### Knowledge is power

Having good information is one of the best ways to feel confident and in control. When you know what to do—whether it is taking a temperature, performing CPR, or keeping a child relaxed during an asthma attack—both you and the child are going to benefit from your knowledge. You can provide the necessary care, remain calm, and maintain control. Lack of information often leads to panic in emergencies or to improper care, such as spreading disease by not washing hands when necessary.

### Keys to getting the message across

Some basic ways for program administrators to teach staff, parents, and volunteers about health include

- *Model* good health behaviors—practice what you preach!
- Establish good health routines such as toothbrushing, serving only healthy foods, handwashing.
- Post routines and suggestions as reminders—emergency plans, handwashing techniques, diapering instructions.
- Teach children good habits and they will remind you!
- Use a variety of media and training techniques such as staff meeting discussions, workshops/guest speakers, newsletters, site visits (e.g., hospital emergency room), newspaper and magazine clippings, posters, pamphlets, and other audio-visual materials.

### Topics

How do you know what to plan for staff/parent health training? Many state licensing agencies require specific training in topics such as approved first-aid procedures, CPR, and treatment of convulsions and choking. Beyond that, decide what is most important for your group this year. Here are some ideas to help you plan:

- Ask your administrator or health consultant to observe the program, consider families' needs and strengths, and suggest topics for immediate and long-term concern.
- Ask staff and parents about their needs and interests. It is usually helpful to present a list of suggested topics. You might ask them to set priorities for their choices.
- Find out the most convenient time to meet with parents.
- Try to get a sense of the learning style of the parents and staff. Plan something for everyone—speakers, written materials, hands-on experience, films.
- Plan a yearly training schedule based on the priority topics. Revise and update your schedule each year. Some suggested topics are
  —orientation to your health policies
  —preventive health practices
  —nutritional needs of children
  —safety/injury prevention, including transportation safety
  —first aid
  —management of minor illness
  —child growth and development
  —child abuse/neglect
  —cultural views of health
  —how to be a good consumer of health services/health advocacy
  —health education for young children
  —the meaning of health screenings
  —chronic illness/special needs
  —parenting—discipline, talking with children

Figure 2-1 will also help you identify objectives to integrate your health program for children, staff, and parents.

## Figure 2-1. Sample integrated health education objectives: Mental/family health

### For children

- Know that it is healthy and normal to express feelings.
- Know that feelings are to be expressed in ways that are not dangerous or traumatic to themselves or others.
- Know that everyone has feelings and everyone needs to have opportunities to express them.
- Understand *same* and *different* (both physical and role), and learn to function with all kinds of people.
- Learn they have abilities by experiencing success in daily activities and thereby develop self-confidence.
- Learn they are part of a family and group.
- Be aware of their bodies and respond appropriately.

### For staff

- Provide effective developmental assessment of children.
- Recognize and support importance of children's secure home base.
- Recognize children's normal reactions to strange situation.
- Provide psychologically safe environment for children, staff, and parents.
- Model positivism and acceptance.
- Be aware of own attitudes concerning family, emotional expression, cultural differences, sexual curiosity of children.
- Develop partnership with parents, using resources of home and community.

### For parents

- Develop skills in observing children's feelings and needs.
- Recognize importance of secure home base for children.
- Develop stable relationship with children's program and community health care providers.
- Develop self-confidence through participation.

Nancy P. Alexander

*Parents need to develop stable relationships with their child's program and community health care providers.*

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# Section B

## Healthful environment

### Major concepts

- Good handwashing and cleaning of the materials and facility will help to prevent the spread of disease.
- Good air quality (proper temperature, ventilation, and humidity) and open space help prevent illness and injury.
- Some play activities and materials carry health risks that must be considered.
- Food handling requires special sanitation precautions.
- Specific sanitation procedures are necessary during diapering and toileting to prevent the spread of disease.
- Monitor the environment regularly.

# 3

# Creating a healthy environment

Many programs for young children cannot totally control their environments. Some spaces are rented and were not designed to meet children's needs in the first place. Even so, there are ways you can improve your space. As you work toward ideal conditions, you can establish policies that will control the spread of infectious diseases and maintain a healthier environment.

## Keeping clean with bleach

Throughout this manual, the importance of cleaning surfaces and objects with a recommended bleach solution will be mentioned (see Figure 3-1).

**The standard recommended bleach solution is a 1/4 cup bleach to 1 gallon of water (1 tbs. per quart).**

Use this solution to clean and sanitize items and surfaces (diaper changing surfaces, table tops, toys, eating utensils). Stronger bleach solutions are unnecessary and may cause irritation to children or staff. (Hospitals and some other facilities use solutions of bleach—1 part bleach to 10 parts water—to disinfect heavily contaminated surfaces. This strength is not required for routine use as long as heavy contamination [visible material] is removed first.)

You need to make fresh bleach solution *each day* because bleach loses its strength by evaporation (and thus its effectiveness) when it is exposed to air.

Bleach is quite inexpensive and readily available. However, acceptable commercial alternatives can be used by those who prefer other sanitizing agents. If you purchase commercial products, select those that are EPA (Environmental Protection Agency) chemical germicides registered as hospital disinfectants.

## Handwashing

**Handwashing is the first line of defense against infectious disease.** Numerous studies have shown that unwashed or improperly washed hands are the primary carriers of infections. When you wash and how often you wash are more important than what you wash with.

**Always wash your hands**

- upon arrival for the day
- before eating or handling food
- before feeding a child
- after diapering and toileting
- after handling body fluids (mucus, vomitus) and after wiping noses, mouths, bottoms, sores
- after cleaning
- after giving medication

The five most important concepts to remember about handwashing are

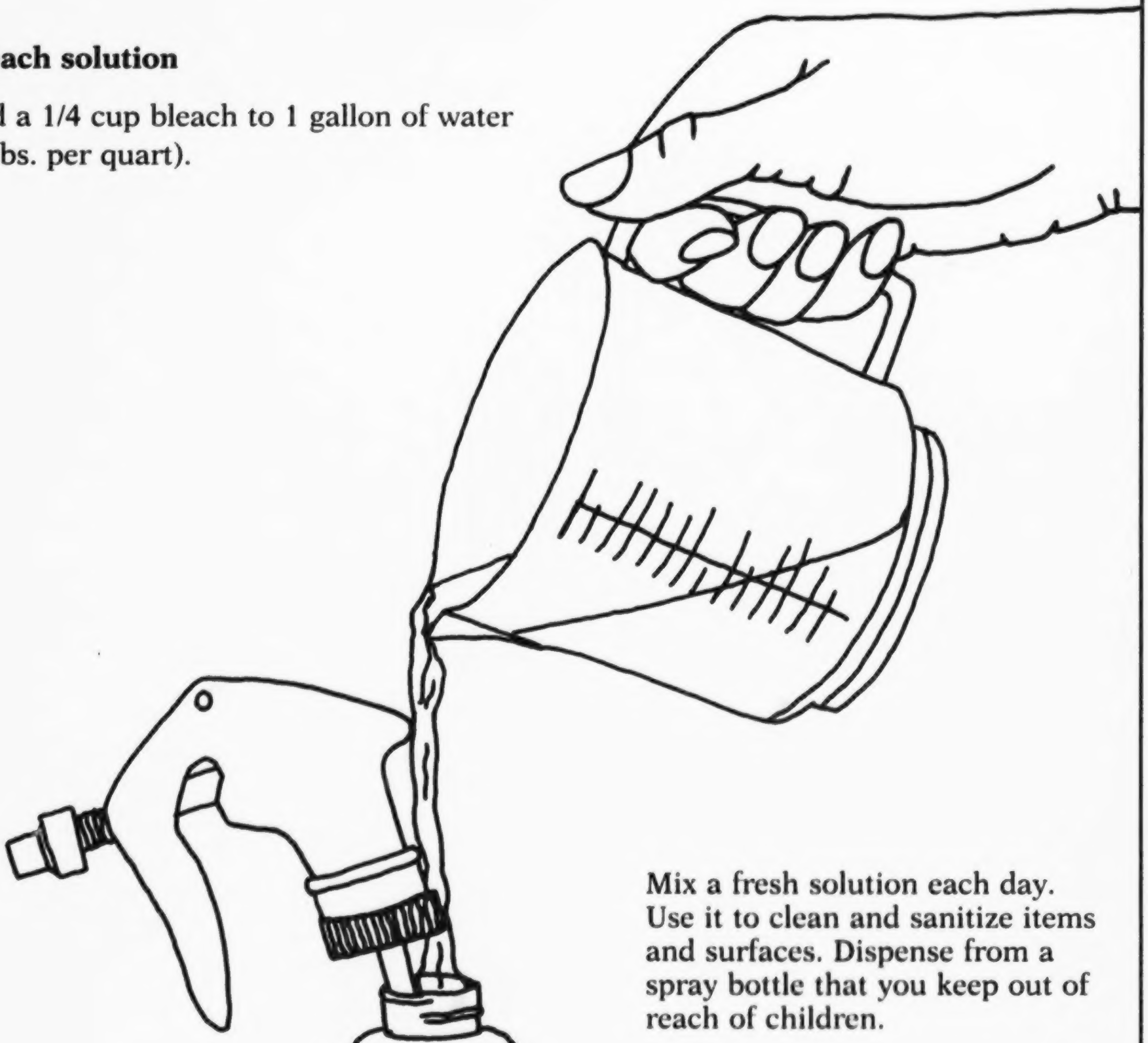
- You must use running water that drains—not a stoppered sink or container. A common container of water spreads germs!
- You must use soap, preferably liquid.
- You must rub your hands together for approximately 15 seconds. This friction helps remove the germs. Rinse hands well under running water for 30 seconds.
- You must turn off the faucet with a paper towel. Because you use your dirty hands to turn on the faucet, the faucet is considered dirty at all times. If you touch it with clean hands you will be recontaminated. Ideally, the paper towel should be thrown into a lined, covered trash container that has a foot pedal.
- Hand lotion should be available for staff to prevent dry or cracked skin.

**Post the handwashing poster (Figure 3-2) above every sink.** Refer, also, to Figure 4-1 for detailed procedures for handwashing.

**Figure 3-1. Bleach solution**

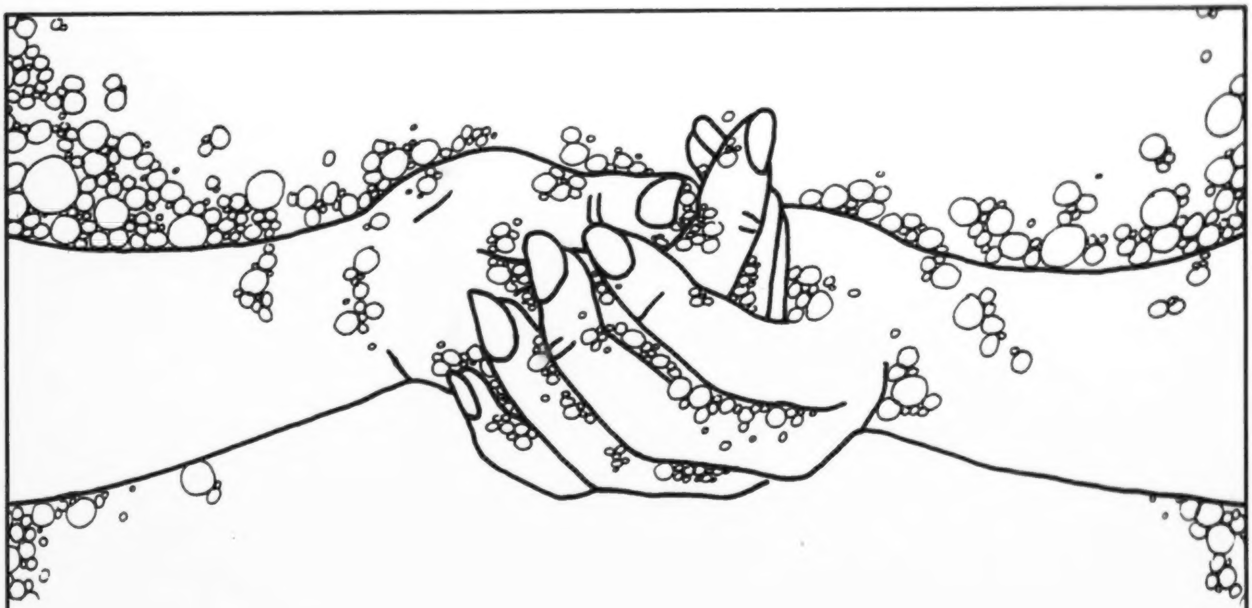
**Bleach solution**

Add a 1/4 cup bleach to 1 gallon of water (1 tbs. per quart).



Mix a fresh solution each day. Use it to clean and sanitize items and surfaces. Dispense from a spray bottle that you keep out of reach of children.

**Figure 3-2. Handwashing poster**



*Wash your hands properly and frequently*

Use soap and running water.

Rub your hands vigorously.

Wash all surfaces, including

- backs of hands
- wrists
- between fingers
- under fingernails

Rinse well.

Dry hands with a paper towel.

Turn off the water using a paper towel, not your clean hands.

**Help children learn the proper way to wash their hands too.**

Ideally, sinks should be located near all diapering, toileting, and food areas. If you are renovating or building new space, consider installing a sink with a knee or elbow faucet handle to avoid the concerns of recontaminating hands. Even where new plumbing for sinks is not possible, you might develop some creative alternatives. One interesting example using a portable water tank bubbler is described in Figure 3-3. Portable water alternatives such as these are fine for handwashing as long as

- there is *running* water—not a common basin
- the water temperature is not higher than 115° F.
- the container of contaminated water is out of the children's reach
- the system is safe for children (do *not* use a hot coffee urn for water)
- soap is available

When handwashing is impossible, such as on a field trip, use disposable wet wipes with an alcohol base. (These are better than nothing, but are not as effective as washing with running water.)

Disposable items such as paper towels, diapering covers, and wet wipes are expensive. Consider buying in bulk from medical or paper supply companies. Use centralized buying whenever possible; if you are not part of a system or large agency, ask other programs near you to join in bulk purchases. It is worth it!

## Disposable gloves

Gloves can provide a protective barrier against germs that cause infections. All gloves should be disposable and made of latex. Gloves should be changed after contact with each child. Gloves should not be used as a substitute for handwashing. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood and/or body fluids. Hands should be washed immediately after gloves are removed.

Disposable latex gloves should be considered in the following situations:

- when changing the diaper of a child with diarrhea or a diagnosed gastrointestinal disease
- when contact with blood or blood-containing fluids from a child is likely, particularly if the caregiver's hands have open cuts or sores (e.g., when using first aid for a child's cut or changing a diaper with bloody diarrhea)
- when cleaning surfaces that have been contaminated with blood or gross contamination with body fluids, such as large amounts of vomitus or feces

## Space

Infections pass more frequently from one child to another when children are confined in small spaces. Children need lots of space to roam, for both developmental and health reasons. Open space and good ventilation decrease the opportunity for germs to pass among children.

The best big space available is the outdoors! **Children should play outside every day** except in cases of extreme cold weather or rain. Outdoor play is healthy on many levels—it provides open space to decrease spread of infections, a variety of opportunities for gross motor development, and balance in the children's play and routine. Some children who have particularly high energy levels need lots of outdoor play.

Consider these suggestions for your use of space.

- Do not concentrate toys and equipment in small areas.
- Place cots/cribs at least 3′ from each other and alternating foot to head so that air circulates freely and children do not breathe directly on each other.
- Take children outdoors as often as possible.
- If you group infants and toddlers with preschoolers, be sure to keep the group small to limit the spread of infectious diseases. (Diseases are spread easily by children in diapers.)

## Air quality

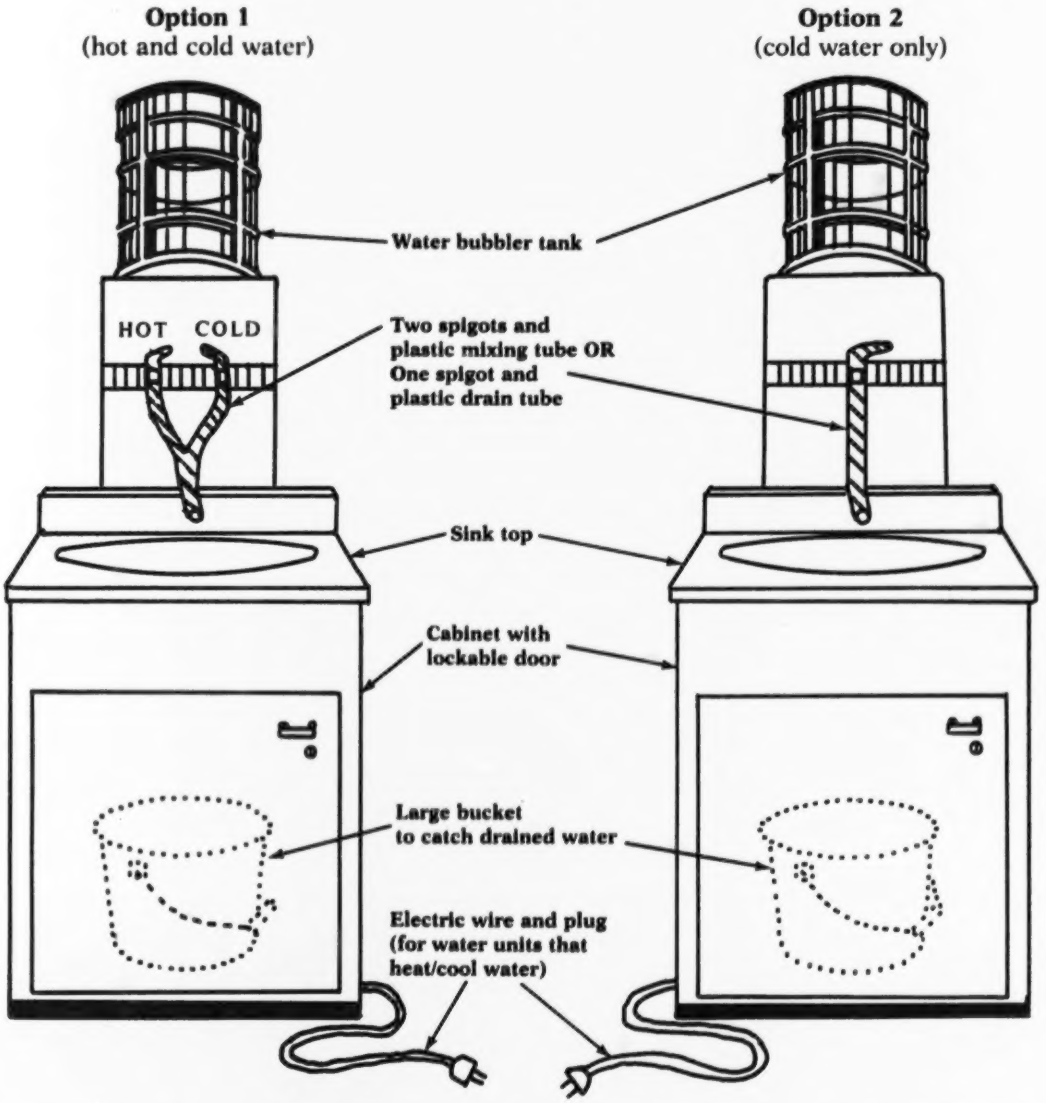
Adequate ventilation, humidity, and temperature control increase our resistance to illness and ability to get well after sickness. In winter, dry, hot air takes moisture from skin and mucous membranes. In summer, hot and humid air prevents children's bodies from cooling off well, and they tend to overheat. Therefore, pay specific attention to the air around you, and try to do the following.

- Keep the air temperature between 65° and 72° F. if at all possible.
- Open the windows in every room every day to circulate fresh air, even in winter (except in centrally air conditioned or ventilated buildings). Windows must be screened to prevent insects from entering and children from exiting.
- Offer more liquids and sponge bathing in extremely hot weather to prevent overheating and dehydration. Use sprinklers outside for toddlers and preschoolers. Young children, especially infants, become dehydrated more easily than adults.

## Figure 3-3. Alternative to running water

Use a portable water (bubbler) tank, a sink top, and a cabinet that can be locked to create a place for handwashing, even if plumbing is not available. The tank will be very heavy when filled with water.

### Setup


**Option 1**
(hot and cold water)
**Option 2**
(cold water only)
**Water bubbler tank**
HOT
COLD
**Two spigots and plastic mixing tube OR One spigot and plastic drain tube**
**Sink top**
**Cabinet with lockable door**
**Large bucket to catch drained water**
**Electric wire and plug (for water units that heat/cool water)**

**Caution:** If your water bubbler has both hot and cold spigots, **you MUST use plastic tubing to mix the water before it reaches the sink.** Hot water can cause severe burns.

**Note:** If your water bubbler has only cold water, keep it unplugged so the water will remain at room temperature.

## Figure 3-3 cont. Alternative to running water

Shop at a discount hardware store if possible to find the items needed to set up your bubbler unit. Select a spigot that locks in the ON position (similar to that on a large coffee urn) so that hands can be washed together. If water flow control is important, use a screw-type facucet. Tubing should be either 3/8" or 1/2" in diameter. Connect the apparatus as shown in the diagram.

Place a very large bucket inside the cabinet under the drainpipe for the sink. Keep the cabinet door locked so children cannot reach the bucket.

### Use

Wash hands using running water from the spigot(s) and liquid soap. Check the waste-water bucket frequently, and empty it into a toilet as needed.

### Refilling water/disinfecting

- If you **replace the water bubbler tank,** remember to sanitize the plastic tubing with bleach solution periodically. Rinse thoroughly before using.
- When you **refill** the water bubbler tank, be sure to sanitize both the tank and plastic tubing with bleach solution and rinse thoroughly before refilling.

- Provide extra clothing during cold weather to maintain body heat. Ask parents to leave extra clothing or develop your own supply. (Shared clothing must be washed between uses by different children.) Hats should never be shared.
- Use a humidifier or cool air vaporizer to add moisture to dry air. Do not use a steam vaporizer.
- If you use an air conditioner, be sure that it is cleaned and serviced regularly. Air conditioners can build up molds and dust that are harmful allergens for some children and adults.
- Avoid strong odors. Some people, including children, have allergic responses to smoke, perfume, and room deodorizers.
- **Do not allow cigarette smoking in spaces that children will use. An even better policy would be to prohibit smoking in the child care facility at any time.** If you feel you must allow smoking, it should be limited to areas such as an office or staff/parent lounge that can be ventilated to the outside to prevent smoke from entering child care areas.

## Asbestos

Asbestos is the name given to material that separates into fibers. If the fibers from these products are inhaled, they can cause cancer or lung disease.

Asbestos is a common insulation material on heating pipes, boilers, and furnaces. **If asbestos insulation is cracked, torn, or crumbling, it can release harmful asbestos fibers.** In most cases, the material can be repaired to prevent fiber release. However, when the material is beyond repair, it should be removed. Because the repair or removal process can release very dangerous fibers into the air, repair and/or removal methods must be approved by your board of health.

If you are concerned that there may be exposed or crumbling asbestos in your facility, contact your board of health.

## Food handling

Improper food handling is one sure way to spread infection! Specific information on sanitary food handling appears in Chapters 4 and 12. Please refer to them and remember these basic concepts for food handling.

- Always wash hands before handling food.
- Never allow children to share food unless individual portions are made (do not lick the same ice cream cone, or put two spoons into the same serving).
- Always keep food far away from a diapering area.
- Whenever possible, adults who change diapers should not prepare food on the same day.
- Keep food and food utensils separate from classroom items.
- Provide drinking fountains that are the approved jet-angle type with a mouth guard above the rim.

## Handling contaminated items

Contact with heavily contaminated materials such as tissues, toilet paper, soiled diapers, bandages, soiled clothing, and vomitus encourages the spread of disease. **Be sure that as few people as possible handle contaminated items and that clean-up areas are completely separated from food handling areas.**

- Use disposable gloves to clean up blood and blood spills. If possible, use them when cleaning up other types of potentially contaminated surfaces.
- Dispose of soiled items immediately into covered containers.
- **Wash hands immediately!**
- Do **not** rinse or wash soiled cloth diapers or clothing. Place it in a plastic bag, close it tight, and keep it out of the reach of children. Ask the parent to take the items home for laundering. Changes of clothing should be kept handy.
- Cover all diaper pails and line them with plastic bags.
- Wash, rinse, and spray all mouthed toys with the bleach solution **between users.** An easy way to do this is to keep a dishpan marked "soiled" on a shelf into which you put toys when they have been mouthed and put down by a child. At naptime, or another convenient time, put dishwasher washable toys through the dishwasher and wash other toys in soapy water. Rinse the toys with water and then with the bleach solution before letting them air dry. Anything not washable in a dishwasher, by hand, or in a laundry machine and dryer should be considered limited for use to one person. Adequate numbers of toys should be available to correspond with the washing frequency.
- Wash and sanitize daily all frequently used surfaces with the bleach solution.
- Wash and sanitize the changing surface and any potty chairs with bleach solution after each use. Consider whether the time and risk of spread of disease involved in potty chair clean-up makes them undesirable in child care.

- Label toothbrushes and personal items. Make sure they are used **only by their owners.**
- Vacuum any carpeted areas on a daily basis, and shampoo or clean them often.

## Turnover and health issues

Aside from the obvious emotional benefits of low turnover of staff and children, there are health benefits too. High turnover constantly introduces new infections. New children and staff may not be immune to the infections already there and may become sick more often. Of course, turnover is a most difficult problem to solve. It is mentioned here so you will be aware of the health risks involved.

Because of the number of comings and goings, large programs (with 50 or more children) open more than 10 hours a day appear to be at greater risk for spreading infectious diseases. Such centers should be particularly careful about preventive health routines.

Do not admit new children into your program during an outbreak of a serious infectious disease (for example, hepatitis A). With your health consultant, decide upon an appropriate waiting period for each infectious disease.

Consider limiting the mixing of children in diapers with older children when possible, although this also may inhibit developmental learning opportunities. You must decide the balance between these two issues.

## Risks from play materials and activities

Some materials and activities for young children can carry specific health risks. You should be aware of the potential risks and know how to handle them. Try to create an environment that is both challenging *and* safe for children and staff.

### Water play

A container of water that is shared by many children carries the risks of spreading germs through the water and the toys. Germs grow in warm and wet environments. If you decide to keep a water table (and you are encouraged to do so), you should

- be sure the water table is cleaned and sanitized with the bleach solution and filled with fresh water at least daily
- have children wash their hands *before* playing at the table
- restrict water table play to children without runny noses or sores on their hands unless individual basins are used
- wash and sanitize all water toys daily (Wash with soap and water and spray with bleach solution, or put in the dishwasher.)
- consider using *individual basins* within the water table. The basins can be cleaned and sanitized more easily between use by children and the water table catches the splashes so clean-up around the table is much easier.

### Dress-up clothes

Sharing clothing generates the risk of spreading disease, particularly head lice and certain skin infections. Any clothing soiled by stool or other body secretions should be removed immediately and not returned until laundered. If there is an outbreak of head lice or scabies you should

- take away all play clothing until the outbreak has stopped
- launder and clean all items according to directions listed in Chapter 17 or store in airtight plastic bags for 2 weeks

Marja Bergen

*All toys used by infants carry the risk of spreading disease because they are mouthed frequently and passed around.*

### Infant/toddler toys

All toys used by infants carry the risk of spreading disease because they are mouthed frequently and passed around. All infant toys should be **washable** as well as **safe.**

- Mouth toys (any that *must* be used in the mouth, such as bubble pipes, horns, tubing for water tables, and toy thermometers) **should not be allowed** unless you are prepared to supervise the use to be sure that the toy is washed, rinsed, and sanitized with the bleach solution between users.
- Toys with hard plastic, rubber, or other cleanable surfaces should be washed and sanitized with the bleach solution at least once daily. Some toys are dishwasher safe.
- Stuffed toys should be machine washable, individually assigned if mouthed, and should be washed at least weekly or more often, if soiled.

Toys that cannot be washed according to these guidelines should not be used. See Chapter 6 regarding choking hazards also.

### Pools (including wading pools)

Pools carry the double risk of spreading disease and possible drowning. Because of these clear health risks, the use of wading pools for young children is not recommended. The use of sprinklers instead of pools on hot summer days is preferable.

Any container of water (bathtub, wading pool, swimming pool) is considered a possible hazard and must be supervised by an adult at **all** times. The adult should be *directly* beside the water. Supervision of a wading pool from a nearby area of the playground is **not** acceptable. Use these guidelines whenever young children are near water.

- Be sure your swimming or wading pool meets the requirements of and is licensed by your board of health. Portable wading pools are acceptable only if used as a bathtub—for one child—then dumped, rinsed, and filled with fresh water for another child.
- **Supervise children at all times.**
- Be sure that a person competent in CPR for young children is in attendance when the pool is in use.
- Do not use disposable diapers in pools with filters, since they can clog the filters. Use cloth diapers and/or rubber pants.
- Fence and lock swimming pools in accordance with accepted safety practice to prevent accidental drownings or chance access by children or others. Portable wading pools should be turned upside down when not in use.
- Post safety rules for the use of pools in a conspicuous location and be sure they are reviewed by the staff.

### Sand

If your sand area is accessible to animals, be sure that it is covered when not in use. Animal feces can spread infectious diseases.

# 4

# Sanitation standards

The sanitation standards presented in this chapter will help you create a sanitary, healthful environment for children. Careful use of sanitary practices can limit the spread of infectious disease. These recommended standards are based on federal and typical state regulations dealing with sanitation, recommended standards from the American Academy of Pediatrics, and *Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs* (National Association for the Education of Young Children, 1984).

## Housekeeping

Early childhood programs should have written policies and procedures for the routine cleaning and maintenance of the facility. Such written policies and procedures should specify the type of sanitizing and cleaning agents used, method for cleaning, and schedule for cleaning. They should also name the person responsible for supervising and monitoring cleaning and other maintenance activities.

**Standard I—The facility is neat, clean, and free of rubbish.**

- Clean the facility in a way that avoids contamination of food and food-contact surfaces.
- Keep soiled linens or aprons in laundry bags or other suitable containers.
- Wash all windows inside and outside at least twice a year.
- Do not use deodorizers to cover up odors caused by unsanitary conditions or poor housekeeping. Ventilate bad smells away.
- Keep storage areas, attics, and cellars free from refuse, furniture, old newspapers, and other paper goods.
- Keep flammable cleaning rags or solutions in closed metal containers in locked cabinets.
- Use a standard sanitizing solution consisting of a 1/4 cup bleach to 1 gallon of water (1 tbs. of bleach to 1 quart of water). Dispense the solution, made up fresh daily, from a spray bottle.
- Wash plastic mats, mouthed toys, and commonly used surfaces at least once a day, spray with bleach solution, and sun or air dry.

**Standard II—Maintain adequate housekeeping and maintenance equipment and cleaning supplies. The equipment is kept clean, in good working condition, and stored safely.**

- Provide adequate housekeeping equipment and cleaning supplies including wet and dry mops, mop pails, brooms, cleaning cloths, and at least one vacuum cleaner.
- Store housekeeping equipment in a separate, locked space such as a closet or cabinet. Do not store it in bathrooms, halls, or on stairs.
- When possible, use a separate sink with hot and cold running water for cleaning purposes only.
- Launder wet mops, dusting and cleaning cloths and sponges **daily** and dry mops **twice a week.** Store sponges in bleach solution between uses.
- If potty chairs are used, use a separate sink to wash, rinse, and sanitize the potty chair bowl. This sink should not be used for handwashing or any other purpose.

**Standard III—There is a pest control program for the facility.**

- Provide screens for exterior windows and doors.
- Store pesticides away from child activity areas and in non-food service and storage areas. Lock all storage areas.
- Post instructions on the safe and proper use of these chemicals in a highly visible location.
- Be sure that pesticides for crawling insects are applied **only** by a certified pest control operator. Be sure a qualified staff member accompanies the

Cleo Freelance Photo

*All programs need a written policy specifying when handwashing is required for personnel and children.*

pest control operator to be sure no chemical is applied to surfaces that children can touch. The insects are much less harmful than the pesticide. Do not use over-the-counter products for crawling insects such as roaches, ants, and spiders. You may use over-the-counter products for flying insects such as bees, wasps, and hornets. Read directions carefully, wash your hands after use, and store the product safely out of the reach of children.

- Be sure that bait for catching pests is kept out of children's reach and in tamper-proof boxes.
- Do not use no-pest strips in food service or sleeping areas. Fly paper is acceptable if it is changed regularly.

**Standard IV—Animals housed as pets are adequately fed, sheltered, and clean.**

- Do not allow any animals in areas used for preparing, eating, or storing food.
- Do not allow turtles, cats, or parrots, as they are known to carry disease.
- Be sure that no child is allergic to the animals for the program. Since it may be traumatic to remove an animal after an allergy is discovered, you should think about whether you truly need an animal likely to cause such problems (rabbits, guinea pigs, and other furry animals).
- Be sure that animals are friendly and have an appropriate temperament to be around children.
- Clean animal areas frequently. Do not use food service facilities. Wash hands afterwards. Do not let children assist with pet cleaning and maintenance to protect them from contamination.
- Be sure animals are healthy and appropriately immunized and licensed. Check pet health and care requirements with a veterinarian before bringing the pet into child care. Some pets need to be protected from abuse by children.
- Be sure children and staff wash their hands after handling or feeding animals.
- Separate animal food and cleaning supplies from food service supplies.

## Handwashing

**Standard V—The program has a written policy that specifies when handwashing is required for personnel and children, defines the handwashing procedure, and provides continuing monitoring to assure that the handwashing procedure is carried out according to the criteria in Figure 4-1.**

## Figure 4-1. Handwashing procedure

### Adults

- Wash hands upon arrival.
- Wash hands **before** preparing food, eating, or feeding a child.
- Wash hands **after**
  —toileting self or a child
  —handling body secretions (e.g., changing diapers, cleaning up a child who has vomited or spit up, wiping a child's nose, handling soiled clothing or other contaminated items)
- Post signs to remind staff and children to wash their hands in the toilet room, the kitchen, and the area where diapers are changed.
- Be sure that the hot water supplied to fixtures accessible to children does not exceed a maximum temperature of 115° F.

#### How to wash hands

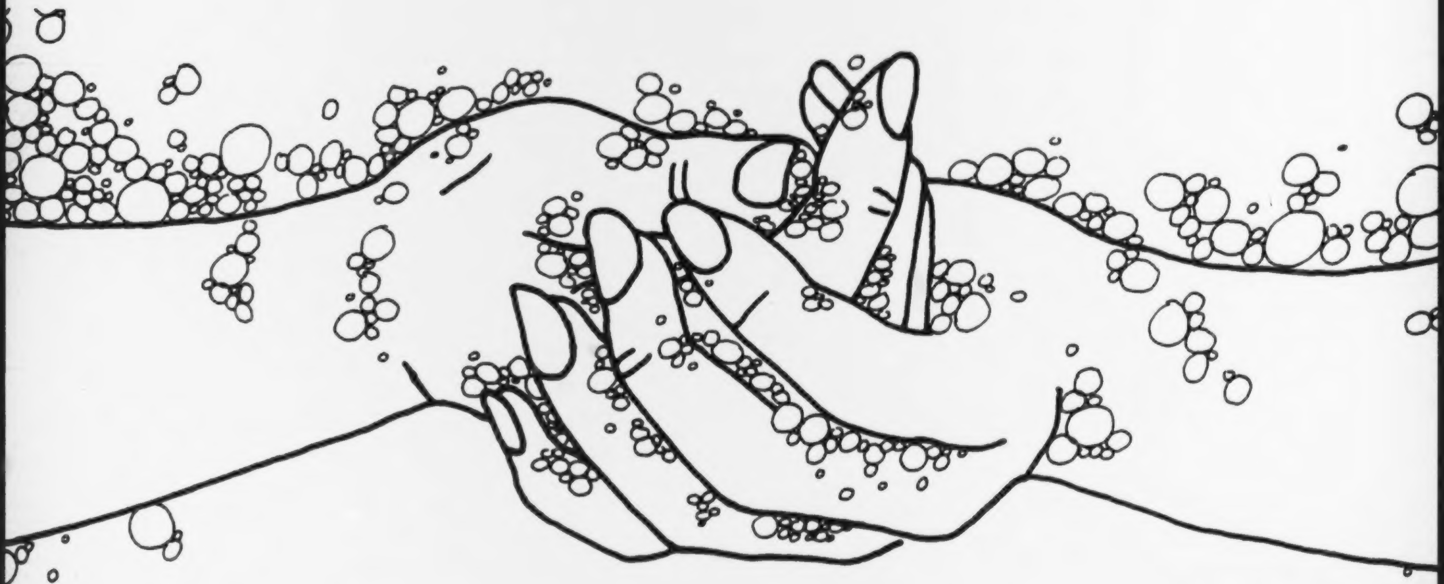
- Turn on water to a comfortable temperature. Check to be sure a paper towel is available.
- Moisten hands with water and apply heavy lather of *liquid* soap.
- Wash well under running water for approximately 15 seconds.
- Pay particular attention to areas between fingers, around nail beds, under fingernails, and backs of hands.
- Rinse well under running water for 30 seconds. Hold hands so that water flows from wrist to fingertips.
- Dry hands with paper towel.
- Use paper towel to turn off faucet; then discard towel.
- Use hand lotion, if desired.

### Infants/toddlers

- Wipe hands with damp paper towel moistened with a liquid soap solution.
- Wipe hands with paper towel moistened with clear water.
- Dry hands with paper towel.
- Turn off faucet with paper towel and discard.

### Older children

- Squirt a drop of liquid soap on children's hands.
- Wash and rinse their hands in running water, directing flow from wrist to fingertips.
- Dry hands with paper towel.
- Turn off faucet with paper towel and discard.
- Teach older children to carry out the procedure themselves. Supervise younger children in carrying out this handwashing procedure.



Nancy P. Alexander

*Staff who prepare food should carry out strict hygiene procedures to help create a sanitary, healthful environment for children.*

## Kitchen facilities

**Standard VI—Programs that provide meals and snacks to children maintain a clean kitchen with adequate equipment and space for food preparation, serving, and storage.**

- Make sure food is handled and used properly by doing the following.
  - —Limit direct handling of food by using utensils such as forks, knives, trays, spoons, and scoops.
  - —Wash raw fruits and vegetables before use.
  - —Cover foods that are stored in the refrigerator and on shelves.
  - —Throw away handled leftovers and food left in serving bowls.
  - —Pay close attention to expiration dates, especially on foods that spoil easily (dairy products, mayonnaise, etc.).
  - —Do not use the kitchen area as a traffic way or meeting room while food is being prepared.

(Also refer to Chapter 12 for further information about food preparation and service.)

- Require that staff who prepare food follow these hygiene procedures.
  - —Wear clean clothes, maintain a high standard of personal cleanliness, and carry out strict hygiene procedures during working hours.
  - —Wash hands according to prescribed handwashing procedure before preparing and serving food and as necessary to remove soil contamination.
  - —Keep hands clean while handling food contact surfaces, dishes, and utensils.
  - —Do not prepare and serve food while ill with a communicable disease.
  - —If possible, do not diaper children or assist with toileting on the same day as food preparation.
  - —Keep hair covered with hairnet or cap while preparing food.
- Provide easy-to-clean equipment and utensils.
  - —Use food contact surfaces and utensils that are easy to clean, nontoxic, corrosion-resistant, and non-absorbent. (No wood utensils or cutting boards.)
  - —Use disposable articles that are made of nontoxic materials. Do not reuse disposable articles.
  - —Install appliances so that they, and areas around them, can be cleaned easily.
  - —Be sure food contact surfaces are free of cracks and crevices; pots and pans are free of pits and dents; and plates are free of chips and cracks. Cracks in any surface can harbor germs.
- Make sure that food contact surfaces and utensils are kept clean.
  - —Clean all eating and drinking utensils, tableware, kitchenware, and food contact surfaces after use.
  - —Do not use cloths used for wiping food contact surfaces for anything else.
  - —Wash a spoon or other utensil used to test food before using again.
  - —Wash food contact surfaces with bleach solution and sun or air dry.
  - —Clean kitchenware and food contact surfaces that have come in contact with spoiled food, sanitize them with the bleach solution, and let them air dry.
  - —Scrape and presoak dishes, pots and pans, and utensils, if necessary to remove food particles before washing.
  - —Wash highchair trays, bottles, and nipples in a dishwasher, if available. If the trays do not fit in dishwasher, wash in detergent, rinse, spray with bleach solution, and air dry.

—Use the proper concentration of suitable detergent for hand and machine dishwashing, according to package directions.

—Use this procedure for hand dishwashing:

1. Use a three-compartment sink or three basins, one each for dishwashing, rinsing, and sanitizing.
2. Wash dishes in hot, soapy water (120° F.), then rinse thoroughly.
3. Dip dishes for 1 minute in bleach solution that is at a temperature no lower than 75° F.
4. Rinse dishes.
5. Sun or air dry. (Do not use dish towels.)

—Make sure that the water used in your dishwasher is 170° F. Because this temperature is higher than that allowed for hot water heaters, you may have to adjust the dishwasher so that the water will reach this temperature.

—Pick up and touch clean spoons, knives, and forks only by handles, not by any part that will be in contact with food.

—Handle clean cups, glasses, and bowls so that fingers and thumbs do not touch the inside or the lip contact surfaces.

**Note:** If you do not have adequate facilities for cleaning and sanitizing dishes and utensils, use only **disposable** items.

## Storage and disposal of garbage

**Standard VII—The facility is kept free of accumulated garbage.**

- Store garbage in water- and rodent-proof containers with tight lids. Remove such containers from children's areas daily.
- Put out garbage for pick up on the day of collection.
- After the garbage is removed, clean the containers, room, and areas.
- Use plastic bags to line covered containers. These may be put out for collection unless prohibited by the board of health. (Store plastic bags out of children's reach.)

## Laundry

**Standard VIII—Make arrangements to wash crib sheets, cot covers, and other items belonging to the program.**

- Equip any laundry area with a sink for soaking, an automatic washer and dryer, and locked cabinets for the storage of soaps, bleaches, and other laundry supplies. Wash laundry with detergent, bleach, and hot water, and dry it in the sun or in an automatic dryer.
- If you do not have laundry facilities, develop a written policy and procedure for handling emergency situations and for doing routine washing.
- **Do not launder** clothing, sheets, or other items, that have been soiled with mucus, feces, urine, blood, or vomitus. Place such items in double plastic bags, seal them, and store away from children. Attach the child's name to the bag, to be taken home by the child's parents for laundering.

## Toilet facilities

**Standard IX—The toilet room is kept clean and sanitized, and the fixtures are in good working condition.**

- Provide sanitarily designed and easily cleaned toilet fixtures and potty chairs. After each use of a potty

  —Empty contents into the toilet.

  —Rinse potty chair with water in a sink not used for any other purpose and empty into toilet.

  —Wash the chair with soap and water. Consider using paper towels or disposable mop. Empty soapy water into toilet.

  —Rinse again. Empty into toilet.

  —Spray with bleach solution.

  —Air dry.

  —Wash and sanitize sink.

  —Wash hands.

Now that you know what is necessary to keep potties clean, you may want to reconsider whether you really want to use them! Suggest that each child have her or his own potty chair sent from home if parents wish a child to use a potty rather than the toilet, but you will still have to follow the procedure listed above.

- Provide toilet paper and holders, towels, and soap dispensers with liquid soap where they can be easily reached by all users.
- Label toothbrushes and make sure they are not shared. Store them brush up, away from contamination. Egg cartons and shoe-box lids are easily adapted, disposable toothbrush holders.
- Empty and sanitize trash containers regularly, using the bleach solution.
- Wash and sanitize bathroom fixtures with bleach solution at least daily or when contaminated by feces or vomitus.

## Plumbing

**Standard X—Plumbing is in compliance with the regulations and codes for your state and county or city.**

## Ventilation, light, and heat

**Standard XI—All rooms are well-lighted, ventilated, and sufficiently heated.**

- Be sure that adequate light is available in rooms, halls, and stairways. Supplement natural light with properly diffused and distributed artificial light.
- Maintain adequate ventilation by using windows that can be opened, air conditioning, or a ventilating system.

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# 5

# Diapering and toilet learning

Diapering and toileting carry distinct health risks to children and adults. You need to handle both of these activities with extreme care from both sanitation and child development viewpoints.

Toileting is one of the most basic physical needs of young children. The way that you handle the process of toileting can have major emotional effects as well. The entire process from diapering infants to teaching toddlers and preschoolers about using the toilet should be a **positive** one. At diapering time you have a chance to engage in special individual communication with a child. It is a time to show extra caring and support.

Often the process of toilet learning for toddlers becomes an unnecessary struggle for control between adults and children. You can join forces with the part of the child that wants to learn and grow. You help a child gain her or his **own** control with your patience and understanding. This chapter will provide ways to meet the physical **and** emotional needs of young children.

## Diapering

### Diapering area

Follow these very important rules about the diapering area.

- Use the area only for diapering.
- Set up the diapering area as far away as possible from any food handling area.
- Provide running water so hands can be washed immediately after a diaper is changed.
- Construct a diapering surface that is flat, safe, and preferably 3′ above the floor.
- Be sure this surface is clean, waterproof, and free of cracks, tape, and crevices. Cover it with a disposable cover. Use cheap materials such as paper bags, used computer paper (on the backside), rolls of paper, or buy disposable squares from discount medical supply companies.
- Keep all creams, lotions, and cleaning items out of the reach of children. Never give a child any of these to play with while being diapered since she or he could be poisoned.
- Provide a belt or strap to restrain the child. Add a guard rail or recessed area as a good extra safety measure. If you have no restraint, always keep a hand on the child. Even when you use a restraint, **never leave the child, even for a second.**

### How to change a diaper

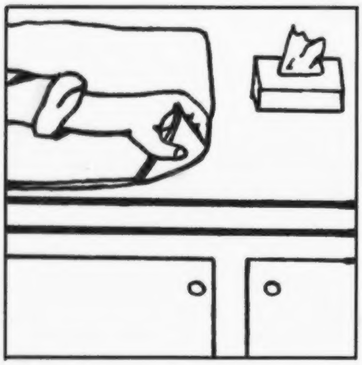
To correctly change a diaper, follow the steps in Figure 5-1. Please copy and post this information above your diapering area.

### Cloth versus paper diapers

Disposable paper diapers are preferable because they can be thrown away, thus reducing the chance of spreading disease. When you use disposable diapers, be sure they are thrown away immediately into a lined, covered pail.

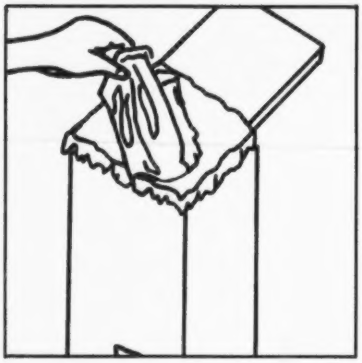
Some children, however, must wear cloth diapers because their skin reacts to disposable ones. Use extra precautions when diapering these children. Empty any stool from a soiled cloth diaper into the toilet, put the diaper in a plastic bag, tie it, and enclose it in a second plastic bag with a name label. (Plastic bags from fruit and vegetables or bread are a cheap and ready supply.) Put the diaper out of reach for the parent to take home. **Do not rinse or launder cloth diapers even if you have a washing machine.** If a diaper service is used, handle the diapering in the same way, except bag the diapers for the service. This is very expensive and therefore not feasible for most programs.

## Figure 5-1. How to change a diaper



- **Check** to be sure supplies you need are ready. **Place** paper or other disposable cover on diapering surface.
- **Pick up** the child. If the diaper is soiled, hold the child away from you.

- **Lay** the child on the diapering surface. **Never leave the child unattended.**
- If you use them, **put** on disposable gloves now.
- **Remove** soiled diaper and clothes. Fold disposable diapers inward and reseal with their tapes.

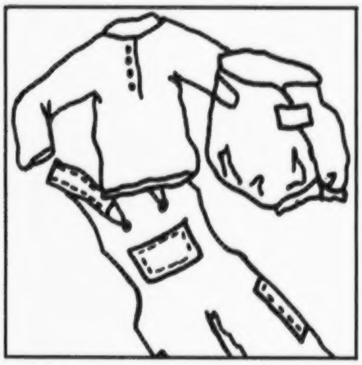


- **Put** disposable diapers in a lined, covered step can. Put cloth diapers in a plastic bag securely tied, then put into a larger, labeled, plastic bag to go home. Do not put diapers in toilet. Bulky stool may be emptied into toilet.
- **Put** soiled clothes in double, labeled, plastic bags to be taken home.

- **Clean** the child's bottom with a moist disposable wipe. Wipe front to back using towelette only once. Repeat with fresh wipes if necessary. Pay particular attention to skin folds. Pat dry with paper towel. Do not use any kind of powder, as inhaling it can be dangerous. Use a skin care product only on parent request.
- **Dispose** of the towelette or paper towel in a lined, covered step can.
- **If you used disposable gloves, discard** them now.
- **Wipe** your hands with a disposable wipe. **Dispose** of it in the lined, covered step can.

## Figure 5-1 cont. How to change a diaper

- **Diaper** or dress the child. Now you can hold her or him close to you.



- **Wash** the child's hands. Assist the child back to the group.

- **Remove** disposable covering from the diapering surface.
- **Wash** and rinse the area with water (use soap if necessary) and sanitize it with bleach solution made fresh daily.

- **Wash** your own hands thoroughly.

## Toilet learning

### When is a child ready?

Children must be ready to participate willingly if the process of toilet learning is to be a positive one. Otherwise, toilet "training" can be a battle of the wills and endless disciplining and disappointments. The purpose of toilet learning is to help children gain control of their body functions. If a child is ready, the process of toilet learning can become a sign of great success and achievement for the child's own sense of growing up. Look for these landmarks that indicate a child is ready for toilet learning.

**Muscle control.** The child must be able to work the bottom muscles at will. She or he must be able to squeeze the sphincter (bottom) and stomach muscles at the same time. Usually most children do not have this control until around their second birthday. Some are not ready until age 3. They should also be able to undress enough to be able to sit on a toilet or potty without assistance and without fear of falling off.

**Communication.** The child should be able to use words or consistent gestures to ask for help undressing or getting to the toilet. Remember to ask parents about their word preferences for toileting (i.e., pee or poo). Bowel movement and urine are good words for children to learn since they are part of the child's needed vocabulary as a grown-up.

**Desire.** Starting before children want to learn about the toilet is a waste of time and may set up a lasting power struggle. Children have a natural desire to please those whom they love and trust. Children also love to imitate! Children will eventually become uncomfortable in diapers and may want to wear underwear instead. Never force children to sit on a potty or toilet.

Parents and staff should decide together when the child is ready to begin toilet learning. Develop a plan together that will be consistent and manageable in both settings. Different approaches are confusing and may be upsetting. If possible, you should develop similar schedules and use similar equipment.

The process of toilet learning usually is neither fast nor consistent. For some children, the process may take several years to complete. Commonly, children have accidents when they are sick (especially with urine infections or diarrhea, tired, excited, very involved in play, or stressed (e.g., when a sibling is born or when there is an illness in the family).

Nancy P. Alexander

*The best technique for toilet learning is to wait until the child is ready and to take the cues directly from the child's own pattern.*

Children should not be punished for lapses in using the toilet. If you expect some backslide, you will be more apt to accept a child's behavior. Children need your understanding and patience when they are having difficulty in toileting. Your support should actually shorten the time for children to regain their toileting patterns. Punishment will prolong the struggle.

### Equipment needs

Some children need no special equipment except a good supply of extra underpants and clothing. Training pants are extra thick and absorbent and may be helpful, although not necessary, in the beginning.

Some children are insecure or frightened on an adult-sized toilet and may need one or more of the following:

- **Stool** to step up to the toilet—Use a nonslippery plastic stool, wooden block covered with a washable surface, or any inexpensive step so the children can reach the toilet easily. A step also acts as a firm footrest for pushing. A stool is recommended for all young children who use a toilet.

- **Toilet seat adapter**—This inexpensive adapter fits over the regular seat to make the seat more child-sized and secure. Be sure it is washable plastic.
- **Potty chair**—Potty chair frames should be made of a smooth, non-porous material that is easily cleanable. Wood frames are not recommended. The waste container should be easily removable and fit securely into the chair. Many medical experts recommend potty chairs not be used in groups because of hygiene problems. If a child truly needs a potty chair, ask the parents to provide it as a personal item to be used only by that child. If you do use potty chairs, follow the guidelines for cleaning them in Standard IX in Chapter 4.

### Hygiene when children are learning to use the toilet

- Place any soiled clothes in double, labeled, plastic bags for parents to take home at the end of the day. Washing different children's soiled clothes together can spread disease.
- Help the child use the toilet.
- Help the child wash her or his hands. Tell children that washing their hands will stop germs that might make them sick. When children use the toilet, make sure they wash their hands correctly. Show them how to wash their hands (see Figure 4-1). Watch children wash their hands after they use the toilet, or ask children if they have washed their hands when they return from the bathroom.
- If a potty chair is used, follow the guidelines for cleaning in Chapter 4, Standard IX.
- Wash your hands.

### Helpful hints

The best technique for toilet learning is to wait until the child is ready and to take the cues directly from the child's own pattern. Beyond that, these suggestions may help:

- Choose clothing that is easy to remove in a hurry. A child must be able to act on an urge to toilet immediately. Avoid tight snaps, lots of buttons, etc. Velcro fasteners are especially easy.
- Use the equipment necessary to make the child feel secure. Always explain the equipment and your expectations for its use. In some cases, it may be best if you flush the toilet or remove the waste after the child leaves the room; the noise or disappearance of the waste may frighten some children. Others may enjoy the sound and action.
- Suggest regularly that the child use the toilet. Common toileting times are after meals, before and after naptime, and before trips. Be sure that you do not expect a child to go only on your schedule. Especially in the beginning, children often need/want to go to the toilet frequently.
- Ask the child to sit on the toilet for no more than 5 minutes **unless** the child is upset or uncomfortable. Never insist that the child sit there until "the job is done."
- Always give the child lots of positive feedback and encouragement for success. **Never** punish the child for failures.

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# Section C

## Safety and first aid

### Major concepts

- Most injuries can be prevented.
- Regular safety checks of the indoor and outdoor environment should be made and improvements implemented immediately.
- Infants and toddlers require special safety precautions.
- Safety education for staff, children, and parents must be provided.
- Children and adults must be properly restrained while riding in a vehicle, and specific safety rules must be followed.
- All staff must be trained in first aid and prepared to carry out the center's emergency procedures.

# 6

# Safety

Injuries are the result of problems in the environment, a mismatch between a child's abilities and activities, and/or a lack of adult supervision. Sometimes there are hidden dangers that are seen only after a child or staff member is injured. Injuries can often be prevented by

- being aware of potential hazards
- taking action to eliminate or reduce these hazards
- knowing what to do in an emergency

## Creating a safe facility

A safe facility is arranged so that children can play freely without harming themselves or others. A safe environment allows children to learn by taking risks and challenging themselves and, at the same time, protects them from injury. A sterile, risk-free environment and rules that do not let children play and explore are not healthy.

Your program must follow certain safety standards and practices to be licensed. Local building, sanitary, and fire safety codes must also be observed. You can also create a safe environment by carefully following these additional basic guidelines.

- Be alert to hazards both indoors and outdoors and eliminate or avoid them.
- Look at the world through the eyes of a young child—it is colorful, mysterious, and has new places and objects to experiment with and explore. Get down on your hands and knees to see what a child sees. You may be surprised at what you find!
- Conduct regular safety checks. Each room should be checked at least once per month. Use the two checklists at the end of this chapter (Figures 6-6 and 6-7).
- Encourage all staff to participate in conducting the checks and planning ways to deal with hazards. Parents and older children can help too.
- Know what you're buying or what is being donated to your program. Read labels and instructions carefully. If you have any questions or complaints about the safety of a product, call the Consumer Product Safety Commission (CPSC) at its toll-free number: **800-638-CPSC.**

## Times when children get hurt

**During certain situations and times of day, children are more likely to be injured. Injuries are more likely when**

- another child becomes ill or injured and the routine is disrupted (other children become more at risk)
- staff are absent or busy
- children are not involved in the activity that was planned, and they are tired or hungry (for example, immediately before lunch)
- hazards are too attractive
- staff are not up-to-date on children's abilities
- during field trips, when there are new places to explore and safety rules may be forgotten

## Indoor safety

### Traffic and play areas

- Make sure there is enough space for all furniture and equipment and for traffic around them.
- Bolt top-heavy furniture (e.g., cubbies) to the wall or floor.
- Experiment with different arrangements until you find one that best suits the needs of the children and your program.
- Place chairs and other furniture away from windows, cabinets, and shelves to prevent children

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from climbing or reaching hazards.

- Keep aisles free of toys, furniture, and other tripping hazards such as spilled water. Break up long aisles to discourage children from running.
- Involve the children in setting rules to limit running, pushing, and other such behaviors. Enforce these rules consistently.

### Kitchen and cooking facilities

- Make sure the kitchen is not accessible to children, unless you can provide constant adult supervision.
- Place other cooking facilities or equipment (e.g., hot plates, toaster ovens) out of reach of children.
- Make sure electrical cords and extension cords are not dangling within children's reach.
- Turn handles in toward the back of the stove. Do not carry hot foods or liquids when children are near you.
- Prevent scalds by keeping tap water temperature no higher than 110° F.

### Electrical wiring

- Cover unused outlets with shock stops. Cover outlets in use with outlet covers, especially near sinks and where young children can reach them.
- Use extension cords only when absolutely necessary. Place extension cords so they run along the wall, behind furniture, to reduce the chance of tripping. Never run any appliance or extension cord underneath a carpet or rug—it may become worn or frayed and cause a fire. Never run cords through doorways or walls. Do not nail extension cords to the wall. Keep extension cords out of the reach of infants and toddlers to prevent mouth burns caused by biting. Store extension cords when not in use.

### Choking hazards

Young children may choke during meals or during playtime because they use their mouths to explore and experiment with unfamiliar objects.

- Objects smaller than 1½" in diameter should not be accessible to children who mouth items (Lego pieces, beads, coins, small wads of paper).
- Check toys and equipment regularly for small parts that may break off, such as eyes and noses on stuffed animals, buttons on doll clothes, or plastic hats or shoes on miniature people. Remove or securely attach these items.
- Do not give peanuts to children younger than 4 years old.
- Do not give popcorn, hotdogs, and whole grapes to children until they are 3 years old. Hard candies, gum, and cough drops also can be choking hazards.
- Learn proper techniques for helping a choking infant or child.
- Do not allow balloons—they can be a choking hazard.

Wendy Press

*Teach children how to play correctly and to put toys away immediately after playing.*

### Toys

Most toys are not dangerous by themselves. The way they are used or misused by a child can cause injury.

- Carefully examine toys for sharp, splintered, or jagged edges and small pieces that can be easily broken off. Tug at different parts to test for strength. Reject any with such hazards.
- Check toys frequently and do minor repairs whenever necessary.
- Cover hinges and joints to prevent fingers from being pinched or caught.
- Projectile toys, such as darts, are not appropriate for children younger than age 8 years.
- Bend plastic toys to test for brittleness. Cheap, hard plastic can break easily, leaving sharp edges.
- Test toys for weight and for noise level.
- Look for the nontoxic label on all painted toys and play equipment.
- Keep wooden toys smooth and free from splinters.
- Pull on the heads and limbs of dolls to make sure they won't come off and expose sharp wires.
- Look for the flame retardant label on cloth toys. Check seams regularly for tearing and weak threads.
- Teach children how to play correctly and safely and to put toys away immediately after playing.
- Comment on children's safe play behavior.

### Gross motor equipment

- Be sure riding toys, such as tricycles, are stable and well balanced.
- Provide double matting under indoor climbers.
- Do not use trampolines. They can cause very serious injuries.
- Teach children how to use equipment correctly and safely.
- Compliment children on safe play behavior.

### Toy chests

Toy chests are not an appropriate way to display toys for groups of children. Use open shelves instead to limit toy breakage and increase children's ease of selection. Toy boxes also are very cluttered. If parents wish to purchase a toy chest for home use, suggest a laundry basket be used instead. If they insist on a toy chest, the Consumer Product Safety Commission offers the following advice:

- When you buy a chest with a hinged lid, be sure that the lid is lightweight, has a flat inner surface, and has a device to hold it open in a raised position so that it will not slam shut from its own weight. Make sure that the device to hold the lid open cannot pinch. You may want to remove the lid to avoid possible danger.
- Check for rough or sharp edges on all metal components and for splinters and other rough areas on wooden boxes.
- Try to buy toy chests with rounded and padded edges and corners.
- Be sure the toy box or chest is well ventilated with holes or with a lid that cannot close completely.
- Do not buy a toy chest with a lid that locks.

Dave Swan

*Make sure your program's art materials are nontoxic. The safest materials have the AP or CP labels.*

### Poisons

You probably think first of cleansers and medicines, but your program has many other things that could be harmful if eaten or sucked. Refer to Chapter 8, Emergencies and first aid, for ways to handle poison emergencies.

**Art materials.** Watch children closely during art projects for mouthing of paintbrushes, fingers, crayons, or other objects and materials. Some children are attracted to fruit-scented markers and may try to eat them.

*Avoid using homemade dough clay that has large amounts of salt; it can be dangerous if much is eaten.*

Make sure your art materials have these labels.

- **Nontoxic.** Item will not cause acute (immediate) poisoning.
- **AP: Approved Product.** Item contains no materials in sufficient quantities to be toxic or injurious, even if eaten or swallowed.
- **CP: Certified Product.** Item meets same standards as AP, but also meets specific standards for quality, color, etc.

The safest materials will have the AP or CP labels. Some tips on purchasing art supplies are given in Figure 6-2. If you have any questions, call the Art Hazards Information Center at 212-227-6231.

**Plants.** Plants are a leading cause of poisoning of young children. If eaten, some plants can cause a skin rash or stomach upset—others can even cause death. **Some common household plants are posionous** (see Figure 6-1). Some indoor plants that are safe for growing around young children are

- African violet
- Aluminum plant
- begonia
- Boston fern
- coleus
- dracaena
- hen-and-chickens
- jade plant
- peperomia
- prayer plant
- rubber plant
- sensitive plant
- snake plant
- spider plant
- Swedish ivy
- wandering Jew
- wax plant
- weeping fig

Most plant poisonings can be prevented with some simple measures:

- **Learn** which plants are poisonous. For help, check library books, garden and floral shops, arboretums, or ask your local Cooperative Extension Service.
- **Remove** poisonous plants.
- **Supervise** young children closely around plants. Eating too much of any plant can make a child sick. Label plants so if ingestion occurs accurate information can be given to the poison control center.
- **Teach** children not to put plants, fruits, or berries in their mouth without asking a grown-up first.

**Batteries.** *Small button batteries found in some toys, cameras, and calculators present a choking hazard and can be extremely poisonous if swallowed.* When replacing a button battery, be sure that you discard the old one immediately, away from children's areas.

**Cooking and kitchen utensils.** Cooking and preparing foods are important for young children. During these activities, observe safety precautions and make sure that children do not mouth or gnaw on cooking utensils. The handles on some utensils are painted with lead-based paint. See *More Than Graham Crackers* (National Association for the Education of Young Children, 1979) for other safety and health suggestions for cooking activities.

**Poisons in diaper-changing area.** Staff should be careful about giving items to children to "keep them occupied" during diaper changing. Avoid giving a bottle of lotion or a container of talcum powder. Many of these substances are dangerous if swallowed or inhaled, and a child mouthing a container might eat some of the contents. Talcum powder should not be used on babies at all because some inevitably gets into the air and can be inhaled and damage the lungs. Also, keep the bleach solution used for cleaning well out of reach of children.

## Safety beyond the classrooms

### Playgrounds

Playgrounds provide the space in which children can challenge themselves physically. While it is important for children to take risks and experiment, they can also get hurt. Many common playground facilities are not appropriate for younger children. For suggestions on how to improve children's outdoor play spaces, see Frost (1986) and Esbensen (1987).

Whether the playground you use is on your property or down the street, you can reduce the chance that a child will be injured by following these basic safety guidelines. These guidelines also apply to home play areas so you may wish to share them with parents. **Many injuries are due to misuse of equipment.** The safest equipment is designed to prevent misuse, but there is no substitute for good supervision.

- Supervise children closely at all times to prevent misuse of the equipment such as swinging too high, running close to moving swings, or playing on equipment that is too advanced. If possible, assign extra staff to areas of high risk.
- Check play equipment and its surroundings once a week; use the Playground Safety Checklist (Figure 6-7).
- Look for sharp edges, rough surfaces, and loose or broken parts. Cover sharp or protruding parts with heavy, waterproof tape.

## Figure 6-1. Poisonous plants

Children are often attracted to the colorful berries, flowers, fruits, and leaves of plants, but more than 700 typical plants in the United States and Canada have been identified as poisonous. Plants are a common cause of poisoning to preschoolers. Most of these poisonings can be prevented, so it's important for parents, grandparents, teachers, and others to keep poisonous plants away from children. If eaten, some plant parts can cause a skin rash or stomach upset; others can even cause death. Here is a partial list of plants that are **very dangerous—CHILDREN HAVE DIED FROM EATING THESE PLANTS.**

- autumn crocus
- azalea
- baneberry
- belladonna
- black cherry
- black locust
- buckeye
- caladium
- caper spurge
- castor bean
- cherry
- chinaberry
- daffodil
- daphne
- delphinium
- dieffenbachia (dumbcane)
- duranta
- false hellebore
- foxglove
- golden chain
- hyacinth
- hydrangea
- jequirity bean
- jessamine
- jimson weed
- lantana
- larkspur
- laurel
- lily-of-the-valley
- lupine
- mistletoe
- monkshod
- moonseed
- mountain laurel
- mushrooms
- nightshade
- oleander
- philodendron
- poison hemlock
- pokeweed
- privet
- rhododendron
- rhubarb leaves
- rosary pea
- rubber vine
- sandbox tree
- tansy
- thorn apple
- tobacco
- tung oil tree
- water hemlock
- white snakeroot
- yellow jessamine
- yellow oleander
- yew

If you think a child may have swallowed **any part** of a poisonous plant, first remove any remaining pieces from the child's mouth. Then bring a piece of the plant to the phone and call your poison control center. Be sure the telephone number of the poison control center nearest you is posted by each telephone. Keep an up-to-date container of syrup of ipecac available in case the poison control center tells you to use it to make the child vomit a poisonous substance. (See the section about first-aid kits in Chapter 8, p. 93.)

**Phone number of local poison control center:**

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### Figure 6-2. How to choose art supplies

**AVOID** powdered clay. It contains silica which is easily inhaled and harmful to the lungs.
**USE** wet clay which cannot be inhaled.

**AVOID** glazes that contain lead.
**USE** poster paints.

**AVOID** paints that require solvents, such as turpentine, to clean brushes.
**USE** water-based paints.

**AVOID** cold-water or commercial dyes that contain chemical additives.
**USE** natural dyes such as vegetables or onion skins.

**AVOID** permanent markers that may contain toxic solvents.
**USE** water-based markers.

**AVOID** instant papier-mâché which may contain lead or asbestos.
**USE** newspaper (printed with black ink only) and library paste or liquid starch.

**AVOID** epoxy, instant glues, or other solvent-based glues.
**USE** water-based white glue or library paste.

**AVOID** powdered tempera paints.
**USE** liquid tempera paint or any nontoxic paint.

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For more information contact Art Hazards Information Center, 5 Beekman Street, New York, NY 10038. Phone 212-227-6231.

- Cover the ground under equipment with 8″ to 12″ of a soft, loose, resilient material such as shredded tires, pea gravel, wood chips, or loose sand.
- Recognize that cement, asphalt, and hard-packed or frozen soil or sand are dangerous play surfaces, even when children are supervised. Rake sand and other loose materials frequently to keep them soft.
- Keep area clean from glass, litter, and large rocks.
- Teach children how to play safely. Involve them in making rules for playground behavior, and enforce these rules consistently. Praise children when they use the playground appropriately (see Figure 6-3).
- Remove a misbehaving child from play and explain how her or his actions could hurt someone.
- Make sure all play areas are protected from streets and traffic to minimize the chance of a child darting into the street.
- Check the outdoor environment for poisonous plants and remove them, if possible.
- Avoid poisonous wood preservatives. If possible, use pressure-treated wood instead.

### Riding toys

Have several sizes of tricycles or other riding toys available for the older toddlers and preschoolers. If a child is too large for the tricycle, it will be unstable. If the child is too small, the tricycle may be difficult to control properly.

- Use low-slung riding toys with seats close to the ground and a wide wheelbase. They are more stable.
- Avoid vehicles with sharp edges, particularly fenders.
- Look for pedals and handgrips with non-skid surfaces to prevent children's hands and feet from slipping.
- Teach children safe riding habits and check on their performance frequently.
- Do not allow wheeled vehicles on sidewalks or near streets, because low tricycles cannot be seen by cars or trucks.
- Do not allow children to ride double. Carrying a passenger makes the vehicle unstable.
- Teach children that riding down hills is dangerous. A tricycle can pick up so much speed that it becomes almost impossible to stop.
- Teach children to avoid sharp turns, to make all turns at low speed, and not to ride down steps or over curbs.
- Advise children to keep hands and feet away from moving spokes.
- Keep the vehicles in good condition. Check regularly for missing or damaged pedals and handgrips, loose handlebars and seats, broken parts, and other defects.
- Cover any sharp edges and protrusions with heavy, waterproof tape.
- Don't leave riding toys outdoors overnight. Moisture can cause rust and weaken metal parts.

### Pedestrian safety

Children learn by imitation and experience. Walks to the nearby playground are teachable moments that can be used to introduce and practice safe pedestrian behavior.

- Use a travel rope to keep younger children together. Children can hold onto spaced knots in the rope. Make the walk fun, not confining, by playing Follow the Leader or singing songs.
- Ask staff to explain rules for crossing the streets safely, enforce the rules consistently, and follow these rules themselves.
- Talk about safety often. Encourage children to think and talk about the reason behind the actions.
- During walks, ask children to point out traffic warning signs (stoplights, signs, and crosswalks) and to explain how they help pedestrians and traffic.

### Field trips

Pay extra attention to safety during field trips because children may become excited about new and unfamiliar surroundings. Remember that safety rules for indoors may not apply outdoors. Increase the safety of your field trips by doing the following:

- Recruit parents, volunteers from senior citizen centers, or students from early childhood courses to help supervise field trips.
- Obtain a signed permission slip for **each** excursion, even neighborhood walks, so you are sure parents approve of the child leaving for that particular trip.
- Be a positive role model. Wear safety belts when riding, and cross traffic areas correctly when walking.
- Involve children in making and enforcing rules. Make sure children **understand** the rules **before** you leave.
- Identify children with a label that states the program's name and telephone number. Do **not** use the child's name.

## Figure 6-3. Safe playground habits

### Swings

- Sit in the center of the swing. Never stand or kneel.
- Hold on with **both** hands.
- **Stop** the swing before getting off.
- Stay **far away** from moving swings.
- Be sure only **one** person is on a swing at a time.
- Don't swing empty swings or twist unoccupied rings.
- Keep head and feet out of the exercise rings.

### Slides

- Wait your turn. Give the person ahead lots of room.
- Hold on with **both hands** climbing up.
- Before sliding down, make sure no one is in front.
- Slide down feet first, sitting up, one at a time.
- After sliding down, **get away from** the front of the slide.

### Climbing apparatus

- Only ____ people at a time. (Fill in your limit.)
- Use **both** hands, and use the lock grip (fingers and thumbs).
- Stay away from other climbers.

### Horizontal ladders and bars

- Only ____ people at a time. (Fill in your limit.)
- Everybody starts at the same end and goes in the same direction.
- Use the lock grip (fingers and thumbs).
- Keep a **big space** between you and the person in front.
- Don't use when wet.
- Drop down with knees bent. Try to land on both feet.

### Seesaws (older children only)

- Sit up straight and face each other.
- Hold on tight with **both** hands.
- Keep feet out from underneath the board.
- **Tell your partner** when you want to get off. Get off carefully, **and hold your end** so it rises **slowly** until your partner's feet touch the ground.

Adapted from U.S. Consumer Products Safety Commission (1981). "Play Happy, Play Safe." Washington, DC: U.S. Government Printing Office.

- Prepare for an emergency by bringing a small first-aid kit with you. Include change for a phone and a list of emergency phone numbers, a folder with copies of emergency forms, and the signed permission slips.
- If you are traveling by car, be sure in advance that there are enough vehicles so that each child and adult has a safety seat and/or belt.

### Summer safety

**Heat and sun.** Warm, sunny weather can present additional areas of concern for outdoor play. Children can easily be burned by the hot sun or by contact with hot surfaces such as asphalt and playground equipment. Dehydration and heatstroke can also occur. Make sure children have access to drinks before and after vigorous play, and at least every 2 hours during the day.

If there is no natural shade on your playground, you may want to create some by using tents or canopies. (They add lots of new fun and adventure, too!) During the period when the hot, midday sun shines (10 a.m. to 2 p.m.) limit the amount of time you spend outdoors. Ask parents to authorize the use of sunscreen lotion or to send protective clothing such as hats or visors.

Protect young children's skin, which is more sensitive to the sun than the skin of adults. At the beginning of the season, provide gradual exposure, starting with 5 to 15 minutes the first day and increasing 5 to 10 minutes each day. Although children with darker skin generally can spend more time in the sun than those who have light skin, even children who have dark skin can burn. Suntans in childhood and later years are responsible for skin cancer and wrinkles in adulthood. Please refer to the sunburn section in Chapter 18 for treatment.

**Drowning.** Drowning is still one of the leading causes of death among young children. There must be constant adult supervision when children are near water (such as swimming pools, wading pools, ponds, streams, or salt marshes). Children can drown in less than an inch of water. Teach children these basic water safety rules right from the start.

- Swim or play in the water only when an adult has agreed to watch you.
- Do not run, push, or dunk in or around water.
- Do not bring glass near the area.
- Do not swim with something in your mouth.
- Yell for help only when you need it.

Teach all adults and older children how to administer mouth-to-mouth resuscitation, the technique to restore breathing.

J. D. Images

*There must be constant adult supervision when children are near water. Teach children basic water safety rules.*

**Preventing insect stings.** Bugs like summer, too. Stinging insects are often seen swarming around sugary containers and trash cans. In late summer, insects are busy gathering sugar from ripe fruits. Although most insects will not sting unless provoked, during late summer and early fall it seems to take less to irritate them and their venom is more potent.

To prevent stings, adults and children should learn to avoid getting excited and moving around rapidly when they see stinging insects. Such activity is more likely to result in a sting. Prevention also includes keeping sugary foods away from children and adults outside. Keep trash cans away from outside play areas. During picnics, avoid sweet foods such as fruits and fruit juices unless water is available to rinse off sticky areas after eating. Sponge off children to keep them cool because perspiration and overheated skin also seem to attract stinging insects.

See the section on first aid for information on how to handle insect and other bites (p. 98).

### Winter outdoor play

Children of all ages enjoy and benefit from playing outdoors in all except the most extreme weather—and that varies according to what you are accustomed to in your climate. In winter, be sure children are dressed warmly. If they are overdressed and play actively, they will get sweaty and then chilled. Staff and children alike will feel refreshed when fresh air is part of the daily routine.

Children should not be allowed to play outdoors when the wind and cold pose a risk for frostbite.

**Snow safety.** Children should be encouraged to play in and with snow, so take advantage of this wonderful natural resource for daily winter play activities. Remember these snow safety precautions.

- **Snowballs can be dangerous,** especially when the snow is packed hard or when children put rocks or other items in snowballs. Being hit in the face or head with this type of snowball can cause a serious injury.
- Be sure children do not throw snowballs into parking lots, streets, or at moving cars.
- **Encourage children to play in the snow and with the snow—but don't let them eat it.** Although eating snow is fun, it is **not** healthy. Particularly in cities, snow can contain dirt or other atmospheric substances.
- Keep a watchful eye on scarves and hoods. They can get caught on playground equipment and have caused strangulation and other serious injuries.
- Keep children dry. Wet clothing allows rapid cooling and frostbite.

## Special safety tips for infants and toddlers

**Never assume that a child's motor abilities will remain the same from day to day.** One day a baby could not possibly turn over and fall off a changing table; the very next day the child can give a successful push and end up on the floor! An infant's or toddler's natural curiosity can be encouraged in a safe environment, if you give special consideration to equipment and indoor and outdoor play areas.

### Equipment and toys

Keep safety in mind when you buy and use furniture and equipment for children younger than 3 years old. Injuries involving cribs, baby walkers, and highchairs are fairly common. You can reduce the possibility of injury by selecting appropriate equipment (see Figure 6-4), properly maintaining it, and supervising its use. Infant walkers are no longer recommended because so many injuries are associated with them when children fall over, pull objects down on them, or go down steps in them. Some authorities also are concerned that children who spend a lot of time in them may not develop the proper sense of balance needed for walking.

**A SPECIAL NOTE:** If you buy or use old infant cribs, be sure they meet the criteria in Figure 6-4.

**Changing surfaces.** Even though the floor may seem to be the safest place to change diapers, it is not recommended for use in groups. **Use a changing surface that is at least 3′ above the floor** to help prevent the spread of infectious diseases. Keep diapering and play spaces separate. Always strap the baby in place if possible. Even so, there is no substitute for close supervision. Always keep at least one hand on the baby. Never leave the baby for a moment, even if a strap is used. Whenever possible, use a table with guard rails or a recessed top. These offer some additional protection against infant falls. Please refer to Chapter 5 for more information about diapering safety.

## Figure 6-4. How to select safe infant furniture and equipment

### Highchairs

**Hazards**

- unstable chairs that tip easily
- trays that baby can push against and unlatch
- seat belts attached to tray instead of chair
- rough, sharp edges or points
- parts that can pinch

**Safety features**

- wide, stable base
- no sharp or rough edges or points
- sturdy restraining straps that are attached securely to chair
- tray that locks securely

**Supervision and use**

- Place highchairs out of the path of opening doors (such as range or refrigerator).
- Be sure child is strapped in securely. Never use the tray as a restrainer without straps. If the highchair has no safety straps, purchase a set and attach them to the chair.
- Never allow a child to stand up in a highchair.
- Put the highchair out of the way when not in use so it can't be knocked over easily.
- Don't let older children hang onto highchair while a baby is in it.
- Make sure child's hands are out of the way when attaching or detaching the tray.

### Walkers

**Hazards**

- walkers that might tip over when baby leans, runs, or reaches
- children can pull objects down on themselves or fall down stairs
- older x-frame walkers that could trap fingers when walker partially collapses
- may interfere with child's development of proper balance for walking

**Safety features**

- stability—wheelbase wider and longer than frame of walker
- sturdy materials: unbreakable plastic or tough fabric seats with heavy-duty stitching or large, rugged snaps
- protective covers over coil springs and hinges; no sharp points or exposed screws

**Supervision and use**

- Remain with baby while she or he uses the walker.
- Prevent the baby from running or leaning too far. Help the child maneuver over thresholds.
- Remove throw rugs and other obstacles.
- Place guards at the top of all stairways and/or keep stairway doors closed to prevent falls.

### Baby carrier seats

**Hazards**

- narrow base, slippery bottom surface
- supporting devices on back that may collapse
- no safety straps

**Safety features**

- sturdy materials and wide, stable base
- safety straps
- nonskid bottom surface
- supporting device that locks firmly in place

**Supervision and use**

- Use the carrier only as intended—it is **not** a car safety seat.
- Always stay with baby.
- Place carrier on a **low, non-slip** surface.
- Always use safety straps.
- Attach rough-surfaced adhesive strips to carriers with slippery bases.
- If you must use a carrier on high surfaces, make sure the child is within arm's reach and out of reach of dangerous objects.
- Check supporting device to make sure it is firmly in place.
- Don't leave the baby (even for a second) untended in an infant carrier above floor level.

# Figure 6-4 cont. How to select safe infant furniture and equipment

## Back carriers

### Hazards

- unpadded frames near baby's face and head
- leg openings that are too large
- joints that could accidentally close and pinch

### Safety features

- padded covering on frame near baby's face
- seat belts
- leg openings small enough to prevent baby from slipping out
- leg openings big enough to avoid chafing baby's legs
- strong stitching and large, heavy-duty snaps to prevent accidental release

### Supervision and use

- Do not use back carriers until baby is 4 to 5 months old and can hold her or his head up.
- Buy carrier to match baby's size and weight.
- Always use restraining straps.
- Be sure leg openings do not chafe the baby's legs.
- Avoid sharp points, edges, and rough surfaces.
- Avoid joints that can accidentally close and pinch or cut the baby.
- Bend from knees when leaning or stooping to minimize chance of baby falling out.
- Walk gently to avoid jolting the baby's neck.

## Cribs

### Hazards

- removable plastic wrapping on mattress
- mattress too small for crib—baby could get stuck between mattress and sides and suffocate
- crib slats too far apart—baby could wriggle through and/or strangle if head gets stuck
- crib so small baby could climb out
- large toys, objects, or bumper pads—older baby could climb on and fall out
- dangling strings—baby may get caught in them and strangle
- finials (decorative devices on cornerposts) and cutouts—baby's head may become caught

### Safety features

- **no more than 2⅜"** between slats
- snug-fitting mattress—if you can fit two adult fingers between mattress and sides, then mattress is too small
- crib sides that lock at maximum height
- no rough edges or exposed bolts
- safe materials, such as nonlead paint—particularly important with older or used equipment
- latching device that cannot be released easily
- no finials, cutouts, or decorative knobs
- endposts no more than ⅝" high

### Supervision and use

- Check latches to make sure they are secure.
- Check slats on all sides for closeness and install bumper pads if too far apart. Do not use a crib if a slat has been broken, unless it has been replaced properly.
- Until you can replace a mattress that does not fit snugly, roll large towels and place them between mattress and crib sides.
- Check baby's standing height on mattress against side rail. If height of rail is less than 3/4 of baby's height when the mattress is in the lowest position, obtain a larger crib, or move the baby to a regular bed.
- Remove large toys or any objects an older baby may stack or use for climbing.
- Never hang any stringed object (including toys) on bedpost—a child could become caught in it. Similarly, never put a loop of ribbon or cord around child's neck.
- Remove and destroy all plastic wrapping materials on crib mattress. Never use plastic cleaner's bags or trash bags as mattress covers.

## Strollers and carriages

### Hazards

- inadequate or faulty brakes
- latches that do not hold securely
- sharp edges or exposed hardware, exposed hinges or dangerous scissors-like mechanisms—children's fingers may be pinched or severed
- canopies that don't lock firmly in place

## Figure 6-4 cont. How to select safe infant furniture and equipment

**Safety features**

- stability safeguards—stroller will not tip over even if child is reclined as far back as possible
- firm, vertical (or nearly vertical) backrest—child's head should be supported
- firmly attached safety belt, waist strap, or harness
- tightly locking brakes—a two-wheel brake provides extra security
- wide base and wheels with large diameters
- canopy that locks in forward horizontal position and rotates to downward position in rear
- shopping basket that can be mounted in front of, or centered above, rear axle for stability
- plastic coverings over exposed hinges

**Supervision and use**

- Check brakes **before** taking baby for a ride; always use brakes when stroller is not in motion.
- Make sure baby is safely strapped in.
- Check latch devices for security on collapsible models.
- **NEVER** leave infant unattended.
- Do not allow other children to pull or stand in or on the shopping basket.

### Playpens

**Hazards**

- playpens too small for growing children—baby shouldn't be able to crawl over the side or cause pen to tip over by leaning against it
- mesh playpens with large open weaves—child can use mesh for climbing or netting may catch buttons
- protruding bolts or rough edges
- hinges that do not lock tightly
- large toys left in playpen—baby could step on them and climb out
- slats that are loose or more than 2⅜" apart
- weak floors; no padding on floor

**Safety features**

- mesh netting with weave smaller than tiny baby buttons (less than ¼" diameter)
- slats no more than 2⅜" apart
- firm floors with a foam pad
- hinges that lock tightly; no sharp edges
- vinyl covering on railings and padding thick enough to resist being chewed and bitten off by teething children

**Supervision and use**

- Never leave a baby in a playpen with one side down.
- Bring playpen indoors after use—rain and sun can damage it.
- Remove any objects that could be stacked and used for climbing.
- Never hang any stringed object (including toys) on playpen; a child could become caught in it. Similarly, never put a loop of ribbon or cord around child's neck.
- Keep an eye on baby and be aware of what she or he is doing.

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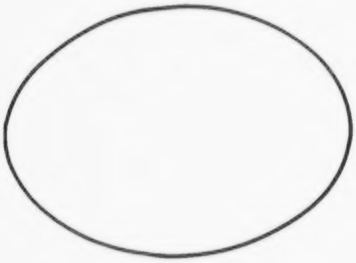
Adapted from U.S. Consumer Products Safety Commission. (1977). "Nursery Furniture and Equipment Can Be Dangerous." Washington, DC: U.S. Government Printing Office.

**Toys.** General information about toy safety was presented on p. 53 in this chapter. Refer to Figure 6-5 for examples of safe toys for children younger than age 3. Follow these special guidelines for infant and toddler toys.

- Regularly check any toys that babies can find and grab.
- Be sure toys are at least 1½″ in diameter so they can't be swallowed.
- Avoid toys that can be taken apart or use only with constant adult supervision.
- Be sure stuffed animals are not so large or heavy that they can suffocate children. Children can also use large toys to climb out.
- Use this CPSC **rattle test** to avoid choking hazards.
  - —Trace the oval here (1⅜″ by 2″) on a piece of cardboard.
  - —Cut out the oval.
  - —If a rattle can pass through this hole to a depth of 1³⁄₁₆″, discard the rattle.

### CPSC rattle test



### Indoor play areas

Programs with infants and toddlers should make sure that enough floor space is available for crawling and toddling children. **These floors should be clean, free of splinters and cracks, and not highly polished.**

Separate infant and toddler play areas from the general play area for older children. This will encourage the younger children to explore without the danger of the older children knocking them down. Provide a carpeted area for quiet activities and beginning large motor movement by infants. Bolt down top-heavy furniture such as shelving or cubbies to avoid toppling.

Michael Siluk

*Teach older children to watch out for the younger children to help keep them safe in outdoor play areas.*

Toddlers must be well supervised especially near water tables and in bathrooms near toilets and deep sinks. All these are naturally of great interest to young children and, with the unsteady gait of toddlers, present a potential drowning hazard.

### Sleeping arrangements

Placement of cots and cribs is an important safety issue.

- Leave a clear aisle between cribs. In an emergency, staff must have quick access to each child.
- Place cribs away from window blinds or shade cords.

### Outdoor play areas

Because infants and toddlers spend much more time on the ground than older children, **check the playground daily** for items that can be hazardous. Be sure to provide close adult supervision when toddlers and older children are outdoors together. Also, teach older children to watch out for the younger children to help keep them safe in the outdoor play areas.

## Figure 6-5. Safe toys for children younger than age 3

- **The first year**
  - sturdy rattles
  - shatterproof mirror
  - bright objects out of reach but hanging in view (mobiles, pictures)
  - washable dolls and stuffed animals (with riveted eyes)
  - bright cloth or rubber balls
  - soft stacking blocks
  - nesting toys
  - ring stack sets
  - squeaky toys (with unremovable squeakers)
  - cloth, vinyl, or board books
  - musical instruments to shake (bells)

- **1 to 2 years old** (in addition to above)
  - pull toys (with strings no longer than 12")
  - large, lightweight spinning top
  - books with cloth or cardboard pages
  - blocks
  - wooden threading beads (large size)
  - snap-together beads (large size)
  - banging musical instruments (xylophone)
  - toy telephones
  - large-sized crayons or watercolor markers (nontoxic)
  - plastic kitchenware (lightweight, without sharp edges)
  - puzzles with knobs and a few large pieces
  - steerable riding toy

- **2 to 3 years old** (in addition to above)
  - puzzles with more large pieces
  - blocks (lightweight)
  - size-shape matching toys and games
  - books with short stories
  - soft dough clay (nontoxic)
  - finger or tempera paint
  - construction sets with large pieces
  - puppets
  - dress-up clothes

For details, see "Toys: Tools for Learning." (National Association for the Education of Young Children, 1985).

**Figure 6-6. Site safety checklist**

Date ____________________

Checked by ____________________

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **General environment** | | | | |
| There is a floormat or other nonskid surface at each entrance to the facility. | | | | |
| Floors are smooth and have a nonskid surface. | | | | |
| Pipes and radiators are inaccessible to children or are covered to prevent contact. | | | | |
| Hot tap water temperature for handwashing is 115° F. or lower. | | | | |
| All pieces of equipment with an electrical motor or an electrical connection are grounded. | | | | |
| Electrical cords are out of children's reach and are kept out of doorways and traffic paths. | | | | |
| Unused electrical outlets are covered by furniture, or outlet covers, or shock stops. | | | | |
| Medicines, cleansers, and aerosols are stored in their original containers and kept in a locked place where children are unable to see and reach them. | | | | |
| Matches and lighters are always kept out of sight and reach of children. | | | | |

### Figure 6-6 cont. Site safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **General environment cont.** | | | | |
| All windows have screens that stay in place when used. Expandable screens are not used. | | | | |
| Windows can be opened 6″ or less from the bottom. | | | | |
| All storage units are stable and secured against sliding and collapsing. | | | | |
| Drawers are kept closed to prevent tripping or bumps. | | | | |
| Trash is covered at all times. | | | | |
| Walls and ceilings are free of peeling paint and cracked or falling plaster. Facility has been inspected for, and is free of, lead paint. | | | | |
| There are no disease-bearing animals such as turtles, parrots, or cats. | | | | |
| Children are always supervised. | | | | |
| There is no crumbly asbestos. | | | | |
| **Equipment and toys** | | | | |
| Desks and chairs are in good repair and are free of splinters and sharp edges. | | | | |
| Toys and play equipment are checked often for sharp edges, small parts, and sharp points. | | | | |

Figure 6-6 cont. Site safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Equipment and toys cont.** | | | | |
| Lead-free paint is used on all painted toys. | | | | |
| Toys are put away when not in use. Open shelves are used whenever possible. | | | | |
| There are no toy boxes used at the facility. | | | | |
| Toys are appropriate for the age and abilities of the children who use them. | | | | |
| Art materials are nontoxic, and have either the AP or CP label. | | | | |
| Art materials are stored in their original containers in a locked place. | | | | |
| Audio-visual equipment (VCR, television, computer, film projector) is secured on stands in a way that will prevent tipping. | | | | |
| Teaching aids (e.g., projectors) are put away when not in use. | | | | |
| Curtains, pillows, blankets, and cloth toys are made of flame-resistant materials. They are laundered regularly. | | | | |
| **Hallways and stairs** | | | | |
| Stairs and stairways are free of boxes, toys, and other clutter. | | | | |
| Stairways are lighted well. | | | | |

### Figure 6-6 cont. Site safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Hallways and stairs cont.** | | | | |
| The right-hand railing on the stairs is at child height and does not wobble when held. There is a railing or wall on both sides of stairways. | | | | |
| Stairway gates are in place when appropriate. | | | | |
| Doors to unsupervised or unsafe areas are always locked unless this prevents emergency evacuation. | | | | |
| Staff are able to monitor strangers entering the building. | | | | |
| **Kitchen** | | | | |
| Trash is kept away from areas where food is prepared or stored. | | | | |
| Trash is stored away from the furnace and hot water heater. | | | | |
| No-Pest Strips are **NOT** used. Pesticides for crawling insects are applied by a certified pest control operator. | | | | |
| Cleansers and other poisonous products are stored in their original containers away from food and out of children's reach. | | | | |
| Nonperishable food is stored in labeled, insect-resistant containers. Perishable food is stored in covered containers in the refrigerator. | | | | |

## Figure 6-6 cont. Site safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Kitchen cont.** | | | | |
| Food preparation surfaces are clean and free of cracks and chips. | | | | |
| Eating utensils are free of cracks and chips. | | | | |
| Electrical cords are placed where people will not trip over them or pull them. | | | | |
| There are no sharp or hazardous cooking utensils within children's reach (e.g., knives, glass). | | | | |
| Pot handles are always turned toward the back of the stove. | | | | |
| The fire extinguisher can be reached easily. | | | | |
| All staff know how to use the fire extinguisher correctly. | | | | |
| **Bathrooms** | | | | |
| Stable step stools are available when needed. | | | | |
| Cleaning products, soap, and disinfectant are stored in a locked place, out of children's reach. | | | | |
| Floors are smooth and have a nonskid surface. | | | | |
| The trash container is emptied daily and kept clean. | | | | |
| Water for handwashing is no hotter than 115° F. | | | | |

**Figure 6-6 cont. Site safety checklist**

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Emergency preparation** | | | | |
| All staff understand their roles and responsibilities in case of emergency. | | | | |
| At least one staff person is always present who is certified in first aid and CPR for infants and children. | | | | |
| The first-aid kit is checked at least monthly for supplies and is kept where it can be reached easily by staff. | | | | |
| Smoke detectors and other alarms are checked regularly to make sure they work. | | | | |
| Each room and hallway has two fire escape routes posted in clear view. | | | | |
| Emergency procedures, telephone numbers, and the address and directions to the facility are posted in clear view near each phone. | | | | |
| Children's emergency phone numbers are kept near the phone. | | | | |
| All exits are clearly marked and are free of clutter. | | | | |
| Doors open in the direction of exit travel. | | | | |
| Cots are placed so that walkways are clear for evacuation in an emergency. | | | | |

Figure 6-6 cont. Site safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Traffic and pedestrian safety** | | | | |
| There is a safe drop-off and pick-up location for children arriving in motor vehicles. | | | | |
| There is a clearly posted, one-way traffic pattern in the loading zone. | | | | |
| School-bus parking is isolated from the flow of automobile traffic and parking. | | | | |
| School-bus drop-off and pick-up times are supervised by a staff member each morning and afternoon. | | | | |
| Signs are posted to warn motorists that they are approaching a school zone. | | | | |

Adapted from Statewide Comprehensive Injury Prevention Program (SCIPP), Department of Public Health, 150 Tremont Street, Boston, MA 02111.

Figure 6-7. Playground safety checklist

Date ______________________________

Checked by ______________________________

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **All equipment** | | | | |
| Nuts, bolts, and screws are recessed, covered, or sanded smooth and level. | | | | |
| Nuts and bolts are tight. | | | | |
| Metal equipment is free of rust and chipping paint. | | | | |
| Wooden equipment if free of splinters and rough surfaces. | | | | |
| Equipment is free of sharp edges. | | | | |
| Ropes, chains, and cables have not frayed or worn out. | | | | |
| Equipment has not shifted or become bent. | | | | |
| There are no "V" entrapment angles on any part of the equipment. | | | | |
| There are no open holes in the equipment forming finger traps (e.g., at the ends of tubes). | | | | |
| There is no corrosion at points where equipment comes into contact with ground surface. | | | | |
| All parts of the equipment are present. | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **All equipment cont.** | | | | |
| Anchors for equipment are stable and buried below ground level. | | | | |
| Children who use equipment are of the age/developmental level for which the equipment was designed. | | | | |
| Slide ladders have handrails on both sides, and flat steps. | | | | |
| There is a flat surface at the bottom of the slide (if the slide is more than 4′ high, the flat surface should be 16″ in length). | | | | |
| The bottom of the sliding surface is no more than 15″ above the ground. | | | | |
| There are no "tube" slides. | | | | |
| There are no circular slides in the preschool area. | | | | |
| The sliding surface is not made of wood or fiberglass. | | | | |
| If the slide is made in several pieces, there are no gaps or rough edges in the sliding surface. | | | | |
| The sliding surface faces away from the sun or is located in the shade. | | | | |
| The steps or rungs on the slide are slip-resistant. | | | | |
| Steps and rungs are regularly spaced, 7″ to 10″ apart, from top to bottom. | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **All equipment cont.** | | | | |
| Rungs are between ¾" and 1½" in diameter. | | | | |
| **Climbing equipment** | | | | |
| An adequate impact-absorbing surface under the structure extends 6′ beyond the slides of the apparatus. | | | | |
| Handholds stay in place when grasped. | | | | |
| Equipment height does not exceed 6′ in height. | | | | |
| Climbers have regularly spaced footholds (7" to 10" apart) from top to bottom. | | | | |
| There is an easy, safe way out for children when they reach the top. | | | | |
| Rungs are painted in bright or contrasting colors so children will see them. | | | | |
| Rungs, climbing bars, and handrails are between ¾" and ½" in diameter. | | | | |
| There is a 28" to 32" (or higher) barrier around preschool equipment that is more than 30" above the ground. | | | | |
| The space between slats of barriers does not exceed 4". | | | | |
| There is no head entrapment area on the apparatus. | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Ground surface** | | | | |
| All elevated play equipment (slides, swings, bridges, seesaws, climbing apparatus) has 8″ to 12″ of impact-absorbing material underneath, such as sand, pea gravel, or wood chips. (Pea gravel and wood chips should be avoided in the infant/toddler areas.) | | | | |
| Surfaces are raked weekly to prevent them from becoming packed down and to remove hidden hazards (e.g., litter, sharp objects, animal feces). | | | | |
| Standing water is not found on the surface or inside equipment. | | | | |
| **Spacing** | | | | |
| Swings have adequate clearance in both directions (14′ beyond the farthest extension of the swing: 8′ of impact-absorbing surface, plus a 6′ safety zone). | | | | |
| Swings are at least 18″ from each other and 28″ away from the frame. | | | | |
| Slides have 2 1/2 to 3 yards of space at the bottom. | | | | |
| There is at least 8′ between all equipment. | | | | |
| Boundaries between equipment are visible to children (for instance, painted lines or low bushes). | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Spacing cont.**<br>Play areas for active play (e.g., bike riding, running a games) are located away from areas for quiet activities (e.g., sandbox, outdoor tables). | | | | |
| **Slides**<br>An adequate impact-absorbing surface under structure extends 5′ beyond the sides of the apparatus.<br>Slides are 6′ in height or less.<br>Side rims are at least 2½″ high (5″ for circular or wave slides).<br>Slides have a flat surface at the top (with safety barriers). | | | | |
| **Swings**<br>Swing seats with back supports and safety bars are available for toddlers and children with disabilities.<br>All swing seats are made of canvas, rubber, or other pliable material.<br>There are no "S" or open-ended hooks.<br>Hanging rings are less than 5″, or more than 10″, in diameter (smaller or larger than child's head). | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Swings cont.** | | | | |
| The point at which the chain/rope and the seat meet is designed to prevent entrapment. | | | | |
| Chain link openings do not exceed ¼" in diameter. When stationary, all seats are level. | | | | |
| There are no more than two swings on any one apparatus. | | | | |
| Preschool swing seats are at a maximum height of 18". | | | | |
| The swing seat cannot rise more than 6' above the surface. | | | | |
| For tire swings, there is at least a 19" safety zone between the support structure and the farthest extensions of the swing. | | | | |
| Tire swings have drainage openings. | | | | |
| Plane swings (gliders) have stable handholds, footholds, and seats. | | | | |
| **Seesaws** | | | | |
| There is an adequate impact-absorbing surface under the structure and beyond the sides of the apparatus. | | | | |
| The seating does not reach more than 5' above the ground. | | | | |
| The fulcrum is enclosed or designed to prevent pinching. | | | | |

## Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Seesaws cont.**<br>Handholds stay in place when grasped, without turning or wobbling.<br>A wooden block is on the underside of the seats **or** a rubber tire segment is buried in the surface under the seats. | | | | |
| **Sandboxes**<br>Sandboxes are located in a shaded spot.<br>The sand is raked at least every week to check for debris and to provide exposure to air and sun.<br>The box is covered at night to protect from moisture and animal excrement.<br>The sandbox has proper drainage. | | | | |
| **Rocking equipment**<br>There is an adequate impact-absorbing surface under the structure and extending 6′ beyond the sides of the apparatus.<br>Seating surfaces are less than 39″ above the ground.<br>There are no parts that could cause a pinching or crushing injury. | | | | |

Figure 6-7 cont. Playground safety checklist

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **Rocking equipment cont.** | | | | |
| Handholds stay in place when grasped. | | | | |
| Footrests stay in place. | | | | |
| **Tunnels** | | | | |
| The internal diameter of the tunnel is at least 2′ 6″. | | | | |
| There are two exits from the tunnel. | | | | |
| The tunnel is designed to drain freely. | | | | |
| **General environment** | | | | |
| The playground can be reached safely by children (on foot or bicycle). | | | | |
| The playground is accessible to people with disabilities. | | | | |
| If needed, a suitable perimeter fence is provided (e.g., if the playground is near a road, pool, or pond). Seating (benches, outdoor tables) is in good condition. | | | | |
| Signs give information about<br>• where to seek help in case of an emergency<br>• restrictions on the use of playground (hours, pets)<br>• name and address of playground operator (to report hazards) | | | | |

**Figure 6-7 cont. Playground safety checklist**

| Item | True | False | Date made correction | Corrections/comments |
|---|---|---|---|---|
| **General environment cont.** | | | | |
| A road sign advises motorists that a playground is nearby. | | | | |
| Trash receptacles are provided and located away from the play areas. | | | | |
| Poisonous plants are removed from play area. | | | | |
| There is a source of clean drinking water available in the play area. | | | | |
| There is shade. | | | | |
| The entire play area can be seen easily for good supervision. | | | | |

Adapted from Statewide Comprehensive Injury Prevention Program (SCIPP), Department of Public Health, 150 Tremont Street, Boston, MA 02111.

## Safety education

Provide children with the skills to prevent injuries and to care for themselves and others in case of emergency. Keep in mind that your own attitudes and behaviors toward safety are as important as the physical set up of your facility. Use these different ways to give safety messages to children and staff.

- Be a positive role model.
- Give clear statements when explaining the correct, safe way to do something.
- Compliment children for doing things safely.
- Involve the children in making and enforcing rules. This will increase their safety awareness and help them feel involved. You may also want to involve children in making safety checks.
- Teach children what to do in an emergency and where to get help.

In addition to your own ideas, you may wish to use safety curricula from a variety of resources. Select the age-appropriate safety curriculum that best fits the needs and philosophy of your program. Whatever you decide to do, remember that safety education is more than just a one-time activity. Safety concepts should be integrated into all your activities. For example:

- Include poison prevention in nutrition education.
- Children can make a doll house from cardboard boxes or hollow blocks. Ask them to use real or paper dolls to act out home hazards such as hot surfaces, poisonous products, toys left on stairs.
- Include messages about clothing into discussions on weather and appropriate dress. Suggest that children wear light colors at night or on dark, rainy days and dark colors on bright, snowy days.

## Bibliography

This chapter was prepared in large part by and reviewed by the staff of Statewide Comprehensive Injury Prevention Program (SCIPP) in Massachusetts. It draws upon the extensive library of SCIPP's Injury Prevention Resource Center, as well as some of SCIPP's own research data. Readers wishing more extensive or detailed references should contact the Resource Center at 617-727-1246.

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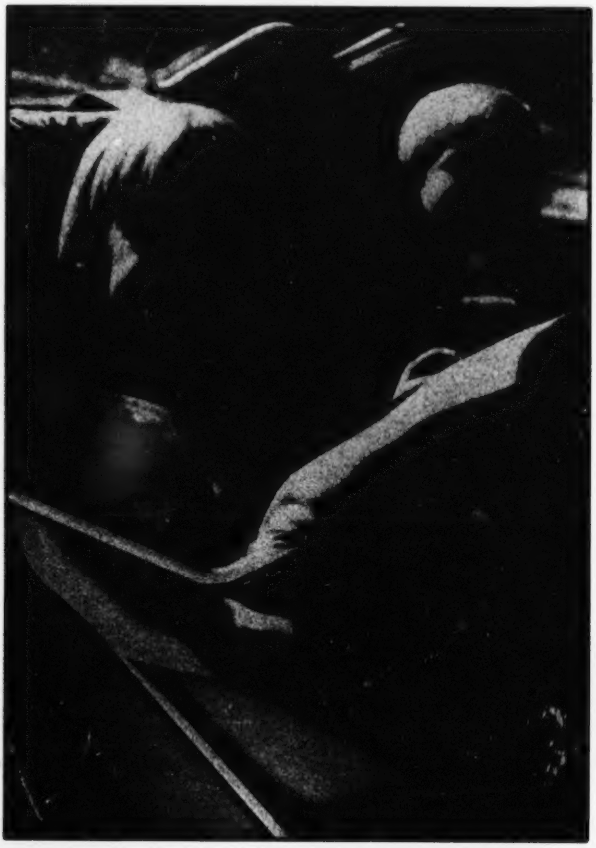
# 7

# Transportation safety

Transportation is an important aspect of all early childhood programs. Whether you drive the children to and from their homes each day or have only an occasional field trip, the cars or buses that you use form part of your environment. Motor vehicle accidents represent the greatest threat to a child's life. You can reduce the chances of injury to children and staff during transport by being alert to potential dangers, eliminating or avoiding these dangers, and knowing what to do when an emergency occurs.



Michaelyn Straub

*All states require that children be fastened in a properly adjusted safety seat or seat belt while riding in a motor vehicle.*

This chapter offers some ideas for setting up and maintaining a safe transportation system. First, be aware of and follow all state laws and licensing regulations that pertain to your program's transportation.

Next, develop a written policy that clearly states the rules, the responsibilities of staff and children, and the emergency procedures to be followed. Use the 10 rules in Figure 7-1 and the topics in this chapter as a guide to help you develop a policy that fits your program's particular needs.

Finally, make **everyone** including staff, drivers, parents, and children aware of the policies and procedures as well as the reasons for their existence. A written policy will help answer questions and encourage everyone to carry out her or his role.

## Child safety restraints

### Legal requirements

Whenever motor vehicles are used to transport children, special safety measures are necessary. The driver of any vehicle must assume responsibility for the safety of the passengers and must have a valid license for the vehicle. All states require that children be fastened in a properly adjusted safety seat or seat belt while riding in a motor vehicle. Car accidents are the number one killer of children, and proper child safety seats help prevent death and injury.

### Figure 7-1. Ten rules for transportation safety

1. Make sure that all vehicles used to transport children have the most recent federally approved safety seats and/or safety belts.

2. Secure each child and adult in her or his own safety seat or belt. Never put two or more children in the same belt.

3. Every day check vehicles that are used.

4. Before each trip, require the driver to conduct a quick 5-minute check to ensure that the vehicle is working well and contains nothing that could harm the children.

5. Ask drivers to remain alert to changes in the vehicle while driving. Unusual odors, sounds, or vibrations can be warning signals for breakdown.

6. Never transport children or adults in the cargo area of a station wagon or van.

7. Never leave children alone in a vehicle.

8. Keep sharp or heavy objects in the trunk. They can become deadly projectiles in a sudden stop or accident.

9. Load and unload young children only when the vehicle is pulled up to the curb, side of the road, or in a driveway, releasing them only to an authorized adult.

10. Do not let children put their arms or heads out of the vehicle's windows.

### Selection of equipment

**Passenger safety seats** manufactured after January 1981 must meet the Federal Motor Vehicle Safety Standard Act 213. Select a seat made since that time that will fit securely and properly in your vehicle(s) and will be used correctly on each ride.

### Proper use of restraints

Refer to Figure 7-2 for information on using safety restraints for young children. Report problems with safety seats to the National Highway Traffic Safety Administration at **800-424-9393.**

Protection of child passengers involves more than simply placing them in a safety seat or seat belt. Child restraint devices can be highly effective in preventing death and injury to children **IF** they are properly used. Carefully read instructions for such devices **before** you install and use them. Make an extra copy of the directions to keep on hand.

Train all staff and parent volunteers who will be using safety seats in their proper use. Each person must be able to demonstrate how to properly install and use the seat.

Remember that metal buckles and plastic coverings can get hot and cause serious burns. Cover seats that are not in use with a blanket or towel. Touch all metal pieces to test temperature before putting a child into a safety seat or safety belt.

## Preparation for emergencies

To be prepared for transportation emergencies, (1) know what to do (e.g., first aid or evacuation) and, (2) have the necessary equipment and information immediately available.

### Emergency procedures

Always expect the unexpected, no matter how efficient and safe your transportation system is. Prepare by taking the following steps:

- Be sure that parents, children, driver(s), and other staff all know what to do in an emergency.

  For each of the following issues, develop a procedure, using suggestions from children, parents, and staff. Use discussion groups and/or handouts to inform everyone of these procedures.
- Train drivers in the specific steps to follow under various emergency conditions.
- Make sure that staff who remain at the program know what to do when they are notified of an emergency on the road (e.g., contact parents or provide alternate transportation).
- Each year, remind parents about the center's emergency procedures and collect accurate parent contact information.
- If you use a bus, practice emergency evacuation drills with the children so they will be familiar with what they may be asked to do.

Transportation emergency issues include
- how to evacuate the vehicle
- how to assess injuries and provide first aid
- how to explain the situation to the children and reassure them of their safety
- what staff still in the building are to do
- when to call for emergency support (e.g., police)
- what to do in bad weather
- what to do when a child becomes ill or injured during transport

Emergency situations need to be handled calmly, efficiently, and with constant attention to the children's fears, concerns, and safety.

### What to have in the vehicle

The information and equipment listed here is helpful for both daily transportation activities and special field trips.

**Information.** Keep information about the children and the route in a three-ring notebook in the vehicle. Make sure the driver and other staff can find it easily. In this information notebook
- include a map of the route with estimated mileages and travel times, and the names and addresses of children on the route
- include an information/emergency card for each child that describes how to reach parents and emergency contacts, and special medical or health information
- provide information on children with special needs so that their ride will be as safe and comfortable as possible. Descriptions of the condition, behavior patterns, and warning signs for medical attention can be helpful in case of an emergency.
- list phone numbers of emergency services such as local police, fire station, hospital, and ambulance service, and name and phone number of the program and a contact person there

**Equipment**
- **First-aid kit**—Use the list of suggested items in Figure 8-2 to assemble your first-aid kit.
- **Emergency toy chest**—Provide songs, books, and toys to help keep children occupied if stuck somewhere.

## Figure 7-2. How to use car safety seats and safety restraints

There are three essential points to remember about restraining children:

1. The child must be buckled properly into the restraint.
2. The restraint must be facing in the appropriate direction.
3. The restraint must be correctly attached to the vehicle.

### Infant safety seats (birth to 20 lbs.)

- Make sure infant safety seats face the **rear** of the car.
- Secure the straps that hold the infant in the safety seat.
- Attach the safety seat to the car with a safety belt.
- Use the safety seat in the semi-reclined position.

### Toddler safety seats (20 lbs. to 50 lbs.)

- Use only for children who can sit up by themselves.
- Place the safety seat facing **forward** and use it only in the upright position.
- Secure the child in the safety seat by a harness, shield, or combination.
- Attach the safety seat to the car with a safety belt.
- If a top anchor strap is provided, USE IT!

### Booster seats (20 lbs. to 65 lbs.)

These seats are an option to the safety belt for children who are shorter than 4'6" (height requirements vary slightly with model), and who have outgrown the height and weight specifications for the toddler seat.

- Use only with support for the upper body—shield, harness, or the vehicle's lap/shoulder belt.
- Use with vehicle lap/shoulder belt (instead of lap belt only) to improve effectiveness.
- Try to use boosters with a tethered upper body harness. They are highly effective although more difficult to use. (They are no longer commercially available, but many are still available secondhand.)

### Safety belts (more than 50 lbs.)

- Use for children who are too tall or too heavy for safety seats.
- Fasten the lap belt low and snugly across the child's hips.
- Use the shoulder belt only if it does not cross the child's face or neck.
- If the shoulder belt is not used, tuck it behind the child, not under her or his arm.
- If no safety seat is available, use safety belts for any child able to sit up alone.

- **Travel rope**—Use for children to hold onto for easy evacuation of the vehicle or for walks from the vehicle to a safe place.
- **Fire extinguisher**, extra **water**, and appropriate **tools** for minor repairs in case of breakdown.

## Field trips/car pools

A well-organized transportation system is important even if you do not transport children regularly. Special trips mean special circumstances. First of all, drivers may be traveling an unfamiliar route, or transporting children who may not ordinarily ride with them. Drivers may be sharing responsibility with volunteers who are themselves in a new situation. Finally, the children may be overly excited or overly tired from a new or long trip, or may be frightened because they are going to an unfamiliar place. These suggestions can help staff transport children safely during special trips

- When your destination is known in advance, review the route mentally or with a map if the distance is great. Practice the route if you have time and the vehicle is available.
- Make sure you have an authorization for and a list of every child and adult who will be traveling. Each child should have a parent's or guardian's permission for each trip. Check your insurance coverage for car pools.
- Make sure both the driver and other adults riding the bus know who is responsible for responding to discipline issues with the children (e.g., parent volunteers, staff, or bus driver). Make sure you tell children who is in charge, and what the rules are.
- Make sure that children and all adults are appropriately restrained and/or wearing safety belts when riding in the car.
- Never have more passengers than seat belts.
- Help the driver concentrate by providing soft books or toys, songs, and conversation for the children.
- Use travel time to talk about rules for safe riding or other important concepts.
- If children become unruly or remove their safety restraints, stop and pull off the road to calm them down. **Do not try to drive and discipline at the same time.**
- Make sure that all passengers know when and where they are supposed to return to the vehicle.
- If more than one vehicle is involved in the trip, make sure that all passengers know in which vehicle they are to ride for the return trip.
- On field trips, make sure that no child enters the vehicle alone or plays on the vehicle while the others are visiting the site. **Never leave children alone in the vehicle.**
- Use a trip sheet to record destination, mileage, times of departure and return, and a list of passengers. For large field trips, the latter is particularly important.
- Be sure that all members of the car pools understand and agree to follow the guidelines you have established for the trip.
- Provide enough staff assistance to be sure every child is buckled up, unbuckled, and removed from the vehicle. Parents who are in a hurry may make unsafe, "just this time" decisions.

## Passenger safety education

### For children

Preschoolers are old enough to learn simple concepts of auto safety. Consistent use of safe behaviors helps children continue to practice them in later

Merrie L. Murray

*Keep parents involved in all educational activities including transportation safety.*

years. There are four major passenger messages to emphasize with children (and parents!).

- Everyone in the car should buckle up—including drivers and passengers in the front and back seats—no matter how short the trip.
- Seat belts go across the hips, not the stomach.
- The back seat is the safest place for child passengers.
- Good passengers buckle up and ride quietly.

The curriculum "We Love You—Buckle Up!" (National Highway Traffic Safety Administration, 1984) contains a variety of activities and materials for use with preschool children and parents. You might make pretend cars with cardboard boxes, chairs, or seats; and safety belts from fabric scraps. Play games such as Simon Says, using safety belts, and entering/leaving vehicles correctly. These games are also fun for role playing and dramatic play activities. Invite the safety officer from your community to come and talk about traffic safety.

### For parents

It is important to involve parents in educational activities; they can promote concepts you present in the classroom. Keep them informed of the topics that you cover with letters, parent education meetings, and personal contacts. You can also send activities home that parents and children can work on together (e.g., counting the number of seat belts in the car).

Focus on three main issues when you work with parents:

- The importance of always using child safety seats and safety belts.
- How to select a suitable child safety seat.
- How to use child safety seats and seat belts correctly.

The article "Child Safety Seats—They Work!" (Scott, 1985) contains many helpful ideas and an annotated bibliography of resources.

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# 8

# Emergencies and first aid

A child falls from the climber on your playground. You suddenly lose your electrical power during a winter storm. You smell gas in the kitchen. A child starts to choke during snack time. Would you know what to do?

No matter how careful and safety-conscious you are, there will be times when emergencies occur. If your center has a comprehensive, written emergency policy, you will be better prepared to handle such situations. Your center's policy needs to answer questions such as

- Who will give first aid?
- Who will take the attendance list if the building needs to be evacuated?
- What will you do if some of the children panic?

Your policy should clearly state the roles and responsibilities of the children and each staff member in an emergency. Parents, too, need to be informed of your emergency policy and their roles in it.

## Preparing for emergencies

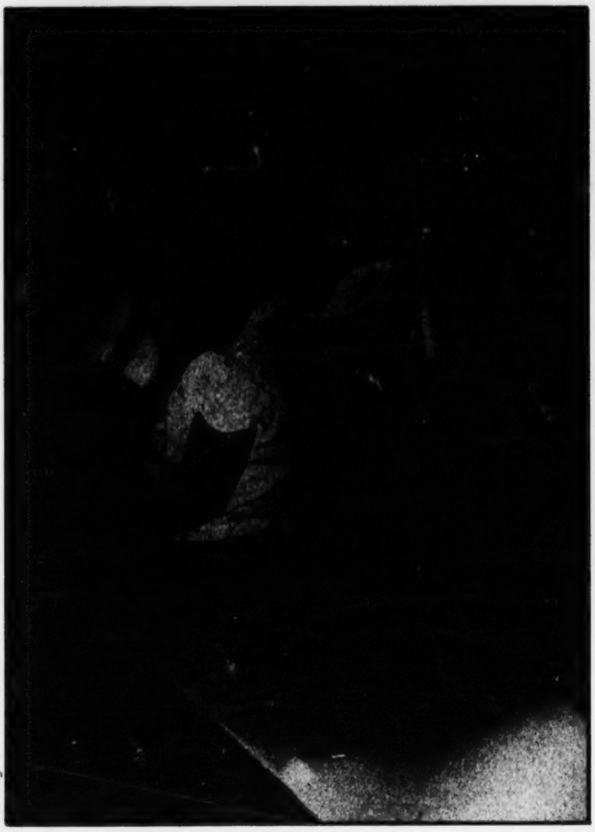
In the event of an emergency in your program, remember these three important things:

- **KEEP CALM**—if you panic, the children are likely to panic, too.
- **FOLLOW YOUR EMERGENCY PROCEDURES**
- **ACT QUICKLY**

Figure 8-1 outlines emergency procedures you can adapt to fit your program, based on its size, location, and children's ages. This and all other figures referred to in this chapter are located at the end of the chapter.

In addition to specifying emergency procedures, you should also take these steps to prepare for potential emergencies.

- **Train staff in first aid and CPR.** Make sure staff receive training and certification in first aid and CPR and renew this certification annually. Require that at least one certified staff person be in attendance at all times.
- **Maintain a first-aid kit.** Figure 8-2 lists the contents for first-aid kits. Pack your kit in any lightweight, convenient container (a lunch box, hand-



Nancy P. Alexander

*Develop a standardized form for reporting all injuries or illnesses that require first aid or additional care.*

bag, or shopping bag). Keep **at least one** first-aid kit available at all times including neighborhood walks and trips. Locate it near high-risk areas such as the kitchen or playground. Have another kit available for field trips or walks. Store your first-aid kit **out of the reach of children** but easily accessible in case of an emergency. Make sure that someone on the staff inspects the kit each month and replaces supplies. Keep a list of contents for the kit, as well as a record of the monthly inspections.

- **Keep information where you need it.** Place a list of emergency phone numbers (Figure 8-5) and a copy of your emergency procedures near each phone for quick reference. Keep an extra list with you on field trips.
- **HAVE IMPORTANT FORMS AVAILABLE**

**Parental permission forms**—Hospitals and emergency rooms will not give emergency treatment to any minor child, except in a life-threatening situation, without parental informed consent at the time of treatment. Ask parents to complete emergency transportation permission forms (Figure 8-3) before enrollment, and keep these on file. Take a copy of all permission forms with you on field trips.

**Injury report forms**—Your program should develop a standardized form for reporting all injuries or illnesses that require first aid or additional care (Figure 8-4 presents a sample). Give one copy of the report to the child's parents and keep another copy in the child's folder. Find out which incidents or injuries must be reported to state or local authorities. Maintain a master listing or injury log so that patterns of injury or other incidents can be monitored and safety in your program improved.

## Getting help

Most of us assume that we can use a telephone to call for help. Usually we can, but it is important to think about alternatives in case a telephone is not available. Know the locations of nearby pay phones, fire alarm boxes, or places you could go for help. Make sure that the phone in your program can be reached easily.

Keep a phone emergency list posted by every telephone (Figure 8-5). Usually you can reach emergency assistance by dialing 911. If 911 is not available in your area, refer to your phone list for specific numbers for police, fire, and ambulance. You can also call the operator, but this is a slower way to get help.

Be sure you know the location of phones in parks, playgrounds, and other places you visit with the children.

Your phone list should include your program's address, description of the building, and directions to it from a major road since these may be hard to remember in a crisis.

Find answers to these questions about your local emergency and medical services.

- Who answers the emergency phone? (Police, fire, ambulance, dispatcher?)
- What steps does the dispatcher have to take before sending the ambulance? (Call another dispatcher? Call Emergency Medical Technicians?)
- Who provides the ambulance service? (Police, fire, volunteer, private companies, another town?)
- How far do they have to travel to get to your program? Where is the station?
- How long will it usually take them to get to your program?
- Where are the nearest emergency rooms?

Try to visit your local helpers **before** you need them in a crisis. Most ambulance services are happy to show groups of visitors around their office, and some will even come visit you if you ask. Emergency rooms are harder to tour, but you can at least visit the waiting area and become familiar with how to get checked in. Familiarity with helpers now will come in handy when you need them later. These visits will also help reassure children.

## Emergency evacuation plans

### Evacuation procedures

Saving lives is the first priority in the event of any emergency. Saving property should be considered **only** when all lives are safe.

Planning, preparation, and practice are the essential ingredients of a successful evacuation plan. Develop a written procedure that includes routes, assignments for all staff, and location of nearest alarm that alerts the fire department.

When your program has an emergency that requires evacuation, follow these steps.

- Sound alarm—notify everyone in building.
- Evacuate—use exit routes or alternate routes previously marked and practiced in drills.
- Eliminate drafts—close all doors and windows.
- Take a head count—make sure everyone is safely out of the building.

- Call fire department **after** leaving the building—call from nearest alarm box or phone if building alarm is not connected to the fire department.

Prepare for emergencies in advance by taking these important actions.

- Keep up-to-date emergency information for children and staff. Make a specific person responsible for having this information on hand in emergencies, on trips, and in the event of program site evacuation. Ask parents to update emergency contact information every 6 months, and verify it by phone or mail.
- Know where you are going to stay if the building has to be evacuated. Families must know where to look for their children. Prearrange an emergency shelter where you will stay and inform parents by letter.
- Record daily attendance of staff and children. Designate a staff member to carry the list out of the building so that complete evacuation is assured.
- Post emergency telephone numbers (police, fire, rescue or central emergency code, and poison control) beside every phone. All individuals using the building should be familiar with these numbers and the procedures to be used in an emergency.
- Plan two exit routes from every area of the building. Post emergency evacuation exit instructions in every room where they can be seen easily.
- Have unannounced evacuation drills monthly. Evacuation should include use of alternative exit routes in case of blockage. Time should vary to include all activities (naptime too) and when the fewest adults are at the center.
- Maintain logs of evacuation drills for on-site inspection and review by the building inspector. **For most buildings, evacuation in less than 2 minutes is possible.** Fire-resistant exit routes in large buildings are usually required to provide enough time to exit safely.
- Contact the public education division at your local police and fire departments and ask them to arrange on-site visits to help staff make appropriate emergency plans.

### Fire preparedness procedures

- Keep the phone number of the fire department and heating service company by your telephones (see Figure 8-5).
- Post a diagram showing the main shut-off switches for electricity, gas, and water.
- Test fire and smoke alarms at least once each month to be sure they are working. Have fire extinguishers inspected annually.
- Place fire extinguishers where they can be reached easily.
- Post diagrams of exits and escape routes in each room. Mark exits clearly, and do not block them with furniture or other objects.
- Practice leaving the building with the children once each month so that they know the sound of the alarm and where to go.
- Include fire and burn prevention in children's curriculum.

Knowing when and when not to use a fire extinguisher is an important part of fire preparedness. Use your extinguisher only if

- You are nearby when a fire starts or the fire is discovered in its early stages.
- Other staff **get all children out of the building and call the fire department.**
- The fire is small (confined to its origin—in a wastepaper basket, cushion, or small appliance).
- You can fight it with your back to an exit.
- Your extinguisher is in working order, and you
  - —Stand back about 8′.
  - —Aim at the base of the fire, not the flames or smoke.
  - —Squeeze or press the lever while sweeping from the sides to middle.
- You can get out fast if your effort is failing.

If the fire spreads beyond the spot where it started or if the fire could block your exit, don't try to fight it. **If you have the slightest doubt about whether to fight or not to fight—don't.** Get out and call the fire department.

### Helping children during emergency or evacuation procedures

**To calm a group of panicked children.** Remove them from the scene (if a child has been injured), and reassure them. Explain simply and carefully what has happened and what will happen. Answer their questions truthfully. Then redirect their attention—a game or quiet activity. Most important: **STAY CALM.** If you panic, the children will panic, too. If you need to evacuate the building, and children are frightened, have them hold each other's hands. Human touch is very reassuring in scary situations.

**To get non-ambulatory children out of the building.** Carry two or three infants at the same time. Use a large wagon to quickly transport toddlers or severely disabled children outdoors (if your building has ramps) or at least to the door where someone else can take them.

**To get a child who is too scared to move to leave the building.** Use your legs to press gently on the back of the child's knees to push him forward or hold his hands with one of your arms across his back. Having everyone join hands can also help the child feel less frightened.

## First-aid procedures

First aid is the immediate care for persons who are injured or ill. All staff must be trained in first-aid procedures and have access to a first-aid guidebook at all times.

Emergency situations are always upsetting. Being upset makes it difficult to think clearly. In these situations, it is particularly important to follow a system so you will be able to react quickly and correctly. First aid is a way to manage an illness or injury until further medical care can be obtained, if necessary. When giving first aid, there are two ways you can harm someone. The first is by not treating an injury, and the second is by further damaging the injury.

Remember these two very important rules of first aid:

- **Do no harm.**
- **Never move a hurt child except to save a life.**

When you provide first aid, it is absolutely critical that you remain calm and reassure the victim. A calm attitude will allow you to think clearly and act appropriately. At the time of an emergency injury or illness, ask other adults to remove the other children to an area away from the victim. This will clear the area so you can carry out the necessary first aid. It will also create a calmer atmosphere for the other children. Later, when the situation is taken care of, you and all others involved (including other children) will need the opportunity to work through your feelings about what happened.

### Assess the injury

Follow these steps whenever you are faced with an emergency situation. If more than one person is injured, start with the one who appears to be in greatest danger.

1. **Find out what happened.** What caused the injury? How? Who is hurt? Is there still danger? Remember, never move a victim except to save a life. Am I calm and reassuring to the children? Who can help?

2. **Check for life-threatening problems.** Is the child conscious?

If the child is not conscious, is the child breathing (chest moving, air coming out of nose or mouth)? If not, lift only the jaw of child and give four quick breaths of mouth-to-mouth resuscitation. Is there a pulse in the neck? If not, start CPR.

If the child is conscious and old enough, ask questions such as, "What's your name?" to help determine the child's condition. Keep checking breathing and pulse as you proceed.

Wash any wounds to reduce chances of infection.

3. **Call an ambulance if you have any doubt about the situation.** Ask another adult to call the emergency number first and then the person legally responsible for the child.

4. **Check for injuries.** Start at the head and work down unless the place of injury is obvious.

**Eyes.** Pull eyelids open and look at the pupils (dark circle in middle). Are they the same size? Are the child's eyes looking in the same direction?

**Ears.** Look for blood or fluid (don't be fooled by tears).

**Scalp.** Feel gently (without moving child's head) for bumps, dents, bleeding, or anything unusual.

**Nose and mouth.** Look for bleeding or tooth injury.

**Neck.** Recheck pulse and breathing. Feel for bleeding, swelling, or stiffness.

**Chest.** Feel gently for swelling, unusual position or motion of bones.

**Back.** Slide your hands under the child to check for bleeding or pain.

**Abdomen.** Check for bleeding, pain, or tight muscles.

**Arms.** Start at the shoulder and feel carefully along both arms. Check for bleeding, swelling, pain, or any unusual shape or motion. Check pulse at the wrist (if it is not strong, check pulse at neck again). Feel hand bones. Check skin temperature.

**Hips and legs.** Are knees the same distance from the hips? Are feet warm or cold?

Keep the victim comfortable and warm with a clean blanket or clothing until help arrives. Provide detailed information to the emergency crew.

If you are handling the situation, administer the appropriate first aid.

5. **Regroup.** Check the condition of any other injured children. Talk with all present in calm, reassuring tones about how you are taking care of the injured child. Complete an injury report form (Fig-

ure 8-4). Give one copy to the parents the day of the incident, put one copy in the child's file. Note the incident in the injury log.

## First aid for common situations

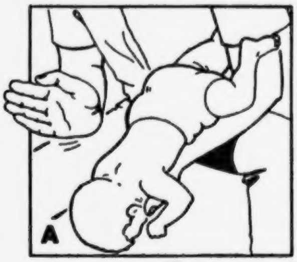
### Choking

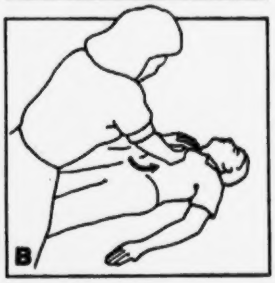
If an infant younger than 1 year of age chokes and is unable to breathe, place the baby face down over your arm with the head lower than the trunk. Rest your forearm on the infant's thigh. Deliver four measured blows rapidly with the heel of your hand between the infant's shoulder blades (see illustration A). If breathing does not start, roll the infant over and compress the chest four times rapidly as for CPR (see CPR section in next column).

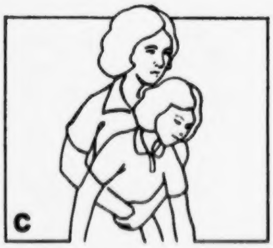
If a child older than 1 year of age chokes, place the child on her or his back. Kneel down and place the heel of your hand on the child's abdomen in the midline between the navel and the rib cage. Apply a series of 6 to 10 abdominal thrusts (as with Heimlich maneuver—rapid inward and upward thrusts) until the foreign body is expelled (see illustration B). With an older child, you can apply the thrusts with two hands while the child is sitting, standing, or lying down (see illustration C).

If the child does not start to breathe, open the mouth and place your thumb over the child's tongue, with your fingers wrapped around the lower jaw. If you see a foreign body, remove it with a finger sweep.

Rapid transport to a medical facility is urgent if these emergency first-aid measures fail.



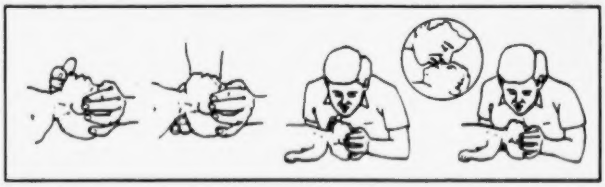




### Cardiopulmonary resuscitation (CPR)

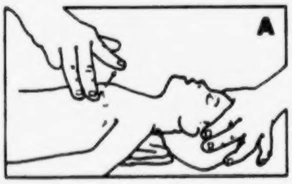
To be used in situations such as drownings, electric shock, and smoke inhalation. Technique of pulmonary support

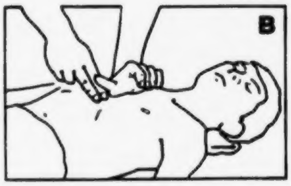
- Clear the throat (see section on choking in left column) and wipe out any fluid, vomitus, mucus, or foreign body.
- Place victim on back.
- Straighten neck (unless neck injury suspected) and lift jaw.
- Give slow, steady breaths into infant's nose and mouth and into larger child's mouth with nostrils pinched closed.
- Breathe at 20 breaths per minute for infants and 15 breaths per minute for children, using only enough air to move chest up and down.



Technique of cardiac support (if no pulse or heartbeat)

- Place victim on firm surface.
- In the infant, using two fingers depress breastbone ½″ to 1″ at level of one finger's breadth below nipples. Compress at 100 times per minute.
- In the child, depress lower ⅓ of breastbone with heel of hand at 80 compressions per minute. There should be 5 compressions to one respiration.
- Learn and practice CPR.





First-aid instructions from the *AAP First Aid Chart*, AAP Committee on Accident and Poison Prevention, revised 1988.

### Bites and stings

**Snake** (non-poisonous)

- Treat as a puncture wound. Consult physician.

If poisonous

- Put patient and injured part at rest. Keep quiet.
- Do not apply ice. May use cool compress for pain.
- Immediate suction without incision may be beneficial.
- Apply loose (allow two fingers under) constricting band above the bite (not around fingers or toes) if cannot get to medical help in 1 hour.
- Transport victim promptly to a medical facility.

**Insects.** Spiders, scorpions, or unusual reaction to other stinging insects such as bees, wasps, or hornets.

- Remove stinger if present with a scraping motion of a plastic card or fingernail to reduce injection of more toxin. Do not pull out.
- Use cold compresses on bite area to relieve pain.
- If victim stops breathing, use artifical respiration and have someone call rescue unit and physician for further instructions.
- If any reactions such as hives; generalized rash; pallor; weakness; nausea; vomiting; "tightness" in chest, nose, or throat; or collapse occur; get patient to physician or emergency department immediately.
- For scorpion sting, get immediate medical advice.
- For spider bites, obtain medical advice. (Save live specimen if safe and possible.)

**Ticks**

- Always thoroughly inspect child after time in woods or brush. Ticks carry many serious diseases and must be completely removed. Use tweezers or protected fingers placed close to the head to pull tick away from point of attachment.
- If the tick's head breaks off, the child should be taken without delay for medical removal of the tick.

**Animal.** Bat, raccoon, skunk, and fox bites, as well as unprovoked bites from cats and dogs (may be from a rabid animal).

- Call physican or medical facility.
- Wash wound gently but thoroughly with soap and water for 15 minutes.

**Marine animals** (poisonous). Stingray, lionfish, catfish, and stonefish stings.

- Put victim at rest and submerge sting area in hot water.
- Call physician or medical facility.

**Marine stings** (non-poisonous)

- Flush with water, remove any clinging material.
- Apply cold compress to relieve pain.
- Call physician or medical facility.

### Burns

Protection against tetanus should be considered in all burns and whenever the skin is broken.

**Burns of limited extent.** If caused by heat

- Immerse extremity burns in cool water or apply cool (50° to 60° F.) compresses to burns of the trunk or face for pain relief.
- Do not break blisters.
- Nonadhesive material such as household aluminum foil makes an excellent emergency covering.
- Burns of any size of the face, hands, feet, or genitalia should be seen immediately by a physician.

**Extensive burns**

- Keep patient in a flat position.
- Remove non-adherent clothing from burn area—if not easily removed, leave alone.
- Apply cool, wet compresses to injured area (not more than 25% of the body at one time).
- Keep patient warm.
- Get patient to hospital or physician at once.
- Do not use ointments, greases, or powders.

**Electric burns**

- Disconnect power source if possible, or pull victim away from source using wood or cloth.
- Do not use bare hands.
- Electric burns may require CPR to be administered.
- All electric burns must be evaluated by a physician.

**Sunburn.** Children younger than 1 year of age may suffer serious injury and should be examined by a physician.

### Convulsions

Seek medical advice. Lay the patient on side, with head lower than hips. Put nothing in mouth. Sponge with cool water if fever is present.

### Eye irritants

- Hold lids open and flush out eye immediately with water.
- Remove contact lenses, if worn.
- Irrigate eye for 15 minutes with a gentle, continuous stream of water from a pitcher.
- Never rub the eye, or use eye drops.
- Call physician, poison control center, or emergency department for further advice.

### Eye pain

Do not apply pressure to eye or instill medications without physician's advice.

- Attempt removal of foreign body by gentle use of moist cotton swab. If not immediately successful, obtain medical assistance. Pain in eye from foreign bodies, scrapes, scratches, cuts, etc., can be alleviated by bandaging the lids shut until aid from a physician can be obtained.
- For chemicals splashed in eyes, flush immediately with plain water and continue for 15 minutes. Do not use drops or ointments. Call physician or poison control center.
- If eye is perforated by a missile or sharp object, do not apply pressure to lids. Avoid straining. Consult ophthalmologist immediately.
- If eye received blunt trauma, consult a physician if in doubt, especially if there is blurring or double vision, flashing lights, or floating specks.

### Fainting

Keep patient in a flat position. Loosen clothing around neck. Turn head to one side. Keep patient warm and mouth clear. Give nothing to swallow. Obtain medical aid.

### Fractures and sprains

Any deformity of an injured part usually means a fracture has occurred. Do not move the person without splinting. A suspected neck or back injury should only be moved with medical assistance to avoid causing paralysis.

Elevate sprains and apply only cold compresses. If marked pain or swelling is present, seek medical advice.

### Head injuries

Provide complete rest. Consult physician. Obtain additional consultation if

- there is a loss of consciousness at any time after injury
- you are unable to arouse the child from sleep. (You should allow the child to sleep after the injury but check frequently to see whether the child can be aroused. Check at least every 1 to 2 hours during the day, and 2 to 3 times during the night.)
- there is persistent vomiting
- the child is unable to move a limb
- there is oozing of blood or watery fluid from the ears or nose
- the child has a persistent headache lasting more than 1 hour. The headache will be severe enough to interfere with activity and normal sleep.
- the child experiences persistent dizziness for 1 hour after the injury
- the child's pupils are unequal
- the child is pale and does not regain normal color in a short time

### Poison emergencies

We usually think of poisoning as swallowing a toxic substance. However, chemicals in the eyes or on the skin and the breathing of toxic fumes are also considered poison emergencies. Do not rely on antidote charts or first-aid information on product labels. They are sometimes incorrect or out of date and can cause additional damage.

**In all cases of poisoning, call your local poison control center.** When you call, be sure to give specific information about

- the product the child was exposed to (have container with you when you call)
- the amount
- the time of exposure

Include **syrup of ipecac** in your first-aid kit. Swallowing ipecac is the most effective way to cause vomiting. **Do not use ipecac unless told to do so by the poison center or physician.** Some poisons, such as drain cleaner or lye, can cause serious damage to the esophagus if vomited.

**Phone number of local poison control center:**

— —

### Shock

Speak reassuringly to the victim. Keep the victim at a comfortable temperature—cover if the environment is cool; cool if the environment is warm.

### Skin wounds

Protection against tetanus should be considered in all burns and whenever the skin is broken.

**Bruises.** Rest injured part. Apply cold compress for 30 minutes (no ice next to skin). If skin is broken, treat as a cut. For wringer injuries and bicycle spoke injuries, always consult physician without delay.

**Scrapes.** Use wet gauze or cotton to sponge off gently with clean water and soap. Apply sterile dressing, preferably non-adhesive or "film" type (Telfapad).

**Cuts**

*Small.* Wash with clean water and soap. Hold under running water. Apply sterile gauze dressing.

*Large.* Apply dressing. Press firmly and elevate to stop bleeding—use tourniquet only if necessary to control bleeding. Bandage. Secure medical care. Do not use iodine or other antiseptics without medical advice.

**Puncture wounds.** Consult physician.

**Slivers.** Wash with clean water and soap. Remove with tweezers or forceps. Wash again. If not easily removed, consult physician.

## First-aid education

### Staff

All staff must be trained in basic first-aid procedures, including choking, seizures, and resuscitation. This training, done by qualified instructors, should be repeated at least yearly, or more often if necessary to train new staff. The first-aid training should include a developmental approach to young children and injury prevention as well as how to handle emergencies appropriately from both a medical and psychological viewpoint. All staff must know your program's policies for emergencies in addition to basic first aid.

### Children

Young children can begin to know how and from whom to get help. Teach children these basic, helpful concepts.

- Follow all safety rules.
- Tell an adult right away if something is wrong (someone is hurt or sick).
- Some things are dangerous (e.g., poisons, matches, tiny objects in the mouth).
- A person who is very hurt or sick may need to be alone with a helper.

Older preschool children also can be taught about basic care concepts such as cuts need to be cleaned with soap and water, direct pressure helps stop bleeding, burns should be treated with cold water. This information may help children to be more cooperative if they can understand why certain first-aid procedures are necessary.

### Parents

Set up a program to help parents refresh their first-aid skills. You may consider inviting parents to your staff training or having a special meeting to review home first-aid procedures. You might want to put brief articles in your newsletter, if you have one. Keep parents informed when you hear about community education programs. First-aid resources are a great addition to a parent lending library, too.

## Figure 8-1. Emergency procedures

1. Remain calm. Reassure the victim and others at the scene.

2. Stay at the scene and give help at least until the person assigned to handle emergencies arrives.

3. Send word to the person who handles emergencies for your program. This person will take charge of the emergency, assess the situation, and give any further first aid, as needed.

4. Do not move a severely injured or ill person except to save a life.

5. If necessary, phone for help. Give all the important information slowly and clearly. To make sure that you have given all the necessary information, **wait for the other party to hang up first.** Arrange for transportation of the injured person by ambulance or other such vehicle, if necessary. Do not drive unless accompanied by another adult. Bring your emergency transportation permission form (Figure 8-3) with you.

6. Do not give aspirin or other medications unless authorized by your local poison control center (for poisonings) or physician (for other illnesses).

7. Notify parent(s) of the emergency and agree on a course of action with the parent(s).

8. If parent cannot be reached, notify parent's emergency contact person and call the physician shown on the child's emergency transportation permission form.

9. Be sure that a responsible individual from the program stays with the child until parent(s) take charge.

10. Fill out an injury report (Figure 8-4) within 24 hours. File in the child's folder. Give parent(s) a copy, preferably that day. Note injury information in central injury log.

## Figure 8-2. First-aid kit contents

These items should be included in a basic first-aid kit.

- a quick-reference first-aid manual (e.g., *A Sigh of Relief—The First Aid Handbook for Childhood Emergencies* [Green, 1984])
- index cards and pens
- thermometer
- flashlight
- blunt-tip scissors
- tweezers
- 10 2″ × 2″ gauze pads
- 10 4″ × 4″ gauze pads
- 1 roll 2″ flexible gauze bandage
- 1 roll 4″ flexible gauze bandage
- 25 1″ and 25 assorted small bandages
- 1 roll 1″ bandage tape
- 2 triangular muslin bandages
- syrup of ipecac (at least 10 1-oz. bottles)
- a large (1 to 2 quart) clean container for use in flushing eyes
- plastic bags (for ice pack)
- rubber gloves
- tissues
- safety pins
- in your field trip kit—coins for pay phones, soap for washing wounds, alcohol-based wipes, synthetic ice packs

**Note:** If a child has a special health need, you will want to include additional supplies in your kit; e.g., bee sting kit or antihistamine for a child with a severe allergy, sugar or honey for a child with diabetes, or inhalator for a child with asthma.

## Figure 8-3. Emergency transportation permission form

Child's name ______________________________

I understand that no emergency treatment may be given without parental consent except in a life-threatening situation. Because informed consent must be given at the time of the incident, I agree to leave numbers where I (or my spouse or a responsible adult designated by me) can be reached promptly if the numbers below do not apply for any given day.

In case of a medical emergency while my child is attending ______________________________
(program name)

______________________________

I understand that the following procedure will be followed:

1. The program will contact parent(s):

***Mother*** can be telephoned at ______-________ during ______________________________.
(hours/days)

______-________ during ______________________________.
(hours/days)

***Father*** can be telephoned at ______-________ during ______________________________.
(hours/days)

***Father*** can be telephoned at ______-________ during ______________________________.
(hours/days)

2. If neither parent is available in an emergency, the program will contact these people:

Name ______________________________ can be reached at ______-________.

Relationship to child ______________________________

Name ______________________________ can be reached at ______-________.

Relationship to child ______________________________

Name ______________________________ can be reached at ______-________.

Relationship to child ______________________________

3. The program will arrange for emergency transportation to ______________________________ or the nearest emergency medical facility, if necessary. At no time will a staff member drive with my child unless accompanied by another adult. My child will be transported by an ambulance or other such vehicle when necessary.

4. The program may contact my child's medical care provider ______________________________

   who can be telephoned at __________-__________.

I hereby authorize the program to follow this procedure.

Parent's signature ______________________________ Date ______________

## Figure 8-4. Injury report form

**SUBMIT WITHIN 24 HOURS OF INJURY**

____ File in child's folder.

____ Give copy to parent.

____ Enter data into injury log.

Child's name ______________________________ Age ______ Date __________

Time of injury ____________________ a.m./p.m. Witnesses ____________________

Parent(s) notified by ____________________ Time ____________________

Location where injury occurred ______________________________

Equipment/product (if any) involved ______________________________

Description of injury (specify body part) and how it occurred ____________________

______________________________________________________________

______________________________________________________________

First aid given at the program ______________________________

______________________________________________________________

______________________________________________________________

Other action taken by medical personnel (specify hospital, clinic, or physician) ______________

______________________________________________________________

Diagnosis/follow-up plan ______________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

Corrective action needed to prevent reoccurence ______________________________

______________________________________________________________

______________________________________________________________

Signature of staff member ____________________ Date ____________________

Signature of parent ____________________ Date ____________________

## Figure 8-5. Phone emergency list

This phone is located at ______________________________

Phone number ______-______-______________________
Area code

Program name ______________________________

Description of building ______________________________

Directions for reaching this location from a major road ______________________
______________________________________________
______________________________________________

Emergency numbers

Ambulance ____________________

Poison control center ____________________

Police ____________________

Fire ____________________

Health consultant ____________________

Hospital ____________________

Nearest emergency facility ____________________

Local board of health ____________________

State dept. public health ____________________

Child abuse reporting ____________________

Rape crisis center ____________________

Battered women's shelter ____________________

Suicide prevention hotline ____________________

Gas company ____________________

Water company ____________________

Heating equipment service ____________________

Electric company ____________________

Plumber ____________________

Taxi ____________________

Parents Anonymous ____________________

Alcoholics Anonymous ____________________

**Always give this information in emergencies:**

1. Name
2. Nature of emergency
3. Telephone number
4. Address
5. Easy directions
6. Exact location of injured person
   (e.g., backyard behind parking lot)

**Optional information:**

7. Help already given
8. Ways to make it easier to find you
   (e.g., standing in front of building, waving red flag)

**DO NOT HANG UP BEFORE THE OTHER PERSON HANGS UP!**

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National Safety Council. (1985, January–February). Home fire extinguishers. *Home Safety Newsletter.*

Schutz, C.E., & Belda, M. (Eds.). (1987). *Guidelines for good health in Illinois day care.* Chicago: Illinois Department of Public Health.

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# Section D

## Preventive health care

### Major concepts

- **Program staff are members of the preventive health team who aim to keep children well.**
- **Regularly scheduled health visits, including health screenings, are essential to maintain children's health.**
- **Health is assessed by the health team based on information from health histories, health observations, screening tests, and medical examinations.**
- **Adults must take care of their own health needs and concerns that may affect their job performance.**
- **Dental health is an important part of general preventive health care.**

# 9

# Preventive health care for children

## Why preventive care is important

Health is defined by the World Health Organization as ". . . a state of complete physical, mental, and social **well-being** and not merely the absence of disease or infirmity." This total state of wellness is affected by the interrelationships between each area of a person's development. For example, when children are ill, tired, hungry, or poorly fed, they cannot function well and may be cranky or inattentive. A child who has an undetected medical condition or who is neglected may become depressed or withdrawn. A child with a physical problem may develop emotional or learning problems; likewise, a child who has emotional upsets may develop physical symptoms as a result of eating and/or sleeping disturbances. Children's health is constantly changing, particularly during their early years.

Adults' health also affects their state of well-being. Adults, like children, require good preventive health care to keep well and function at their best.

### Goals for preventive health care

Young children are at risk for developing a number of health problems such as hearing or vision difficulties, lead poisoning, developmental delays, and injuries. The goal of preventive care is to keep children well, rather than to treat them after they become sick. A comprehensive preventive health care plan has these goals.

- To detect medical conditions that may not be easily recognized that need medical attention (e.g., fluid in the ear, anemia, or "lazy eye"). Early identification and treatment of such problems may completely resolve them, while a delay in attention can result in more—or permanent — damage.
- To identify children who may be at high risk for developing diseases due to hereditary factors, family health habits, or environmental factors.
- To identify and follow signs in growth patterns, behavior, or development that could mean future health problems.
- To evaluate the effectiveness of past or current treatments, such as tubes in ears, antibiotics, or patching an eye.

The goals of routine checkups are

- to promote health through counseling, education, and guidance for anticipated problems
- to take specific preventive measures such as immunizations
- to identify potential health problems through screenings such as measurements of growth, vision, hearing, lead poisoning, and tuberculin testing
- to provide early detection and treatment of illnesses with symptoms (e.g., strep throat) to prevent complications
- to prevent disability from chronic diseases.

It is crucial that children be seen regularly by health care providers to ensure that these goals are met.

The majority of pediatricians in the United States are members of The American Academy of Pediatrics (AAP). The AAP sets the minimum guidelines for routine health care for children. These are updated from time to time as new information about valuable preventive health measures becomes available. The guidelines in use at the time this manual was printed are shown in Figure 9-1. Members of the AAP receive updated versions of the guidelines when they are issued. Be sure a current version is being used by checking with an AAP member. Note that the guidelines are minimum requirements for healthy children who are receiving competent parenting and who have no significant health problems.

## Figure 9-1. Recommendations for preventive pediatric health care

### RECOMMENDATIONS FOR PREVENTIVE PEDIATRIC HEALTH CARE

**Committee on Practice and Ambulatory Medicine**

Each child and family is unique; therefore these **Recommendations for Preventive Pediatric Health Care** are designed for the care of children who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in satisfactory fashion. **Additional vicits may become necessary** if circumstances suggest variations from normal. These guidelines represent a consensus by the Committee on Practice and Ambulatory Medicine in consultation with the membership of the American Academy of Pediatrics through the Chapter Presidents. The Committee emphasizes the great importance of **continuity of care** in comprehensive health supervision and the need to avoid **fragmentation of care.**

A **prenatal visit** by the parents for anticipatory guidance and pertinent medical history is strongly recommended.

**Health supervision** should begin with medical care of the newborn in the hospital.

| | INFANCY | | | | | | EARLY CHILDHOOD | | | | | LATE CHILDHOOD | | | | | ADOLESCENCE[1] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AGE[2]** | By 1 mo. | 2 mos. | 4 mos. | 6 mos. | 9 mos. | 12 mos. | 15 mos. | 18 mos. | 24 mos. | 3 yrs. | 4 yrs. | 5 yrs. | 6 yrs. | 8 yrs. | 10 yrs. | 12 yrs. | 14 yrs. | 16 yrs. | 18 yrs. | 20+ yrs. |
| **HISTORY** | | | | | | | | | | | | | | | | | | | | |
| Initial/Interval | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| **MEASUREMENTS** | | | | | | | | | | | | | | | | | | | | |
| Height and Weight | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Head Circumference | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | |
| Blood Pressure | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| **SENSORY SCREENING** | | | | | | | | | | | | | | | | | | | | |
| Vision | S | S | S | S | S | S | S | S | S | S | ○ | ○ | ○ | ○ | S | ○ | ○ | S | ○ | ○ |
| Hearing | S | S | S | S | S | S | S | S | S | S | ○ | ○ | S[3] | S[3] | S[3] | ○ | S | S | ○ | S |
| **DEVEL./BEHAV.[4] ASSESSMENT** | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| **PHYSICAL EXAMINATION[5]** | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| **PROCEDURES[6]** | | | | | | | | | | | | | | | | | | | | |
| Hered./Metabolic[7] Screening | ● | | | | | | | | | | | | | | | | | | | |
| Immunization[8] | | ● | ● | ● | | | ● | ● | ● | | | ● | | | | | ● | | | |
| Tuberculin Test[9] | ← | — | — | — | — | ● | ← | — | ● | — | → | | | | | | ← | — | ● | → |
| Hematocrit or Hemoglobin[10] | ← | — | — | — | ● | → | ← | — | ● | — | → | ← | — | ● | — | → | ← | — | ● | → |
| Urinalysis[11] | ← | — | — | ● | — | → | ← | — | ● | — | → | ← | — | ● | — | → | ← | — | ● | → |
| **ANTICIPATORY[12] GUIDANCE** | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| **INITIAL DENTAL[13] REFERRAL** | | | | | | | | | | ● | | | | | | | | | | |

1. Adolescent related issues (e.g., psychosocial, emotional, substance usage, and reproductive health) may necessitate more frequent health supervision.
2. If a child comes under care for the first time at any point on the schedule, or if any items are not accomplished at the suggested age, the schedule should be brought up to date at the earliest possible time.
3. At these points, history may suffice: if problem suggested, a standard testing method should be employed.
4. By history and appropriate physical examination: if suspicious, by specific objective developmental testing.
5. At each visit, a complete physical examination is essential, with infant totally unclothed, older child undressed and suitably draped.
6. These may be modified, depending upon entry point into schedule and individual need.
7. Metabolic screening (e.g., thyroid, PKU, galactosemia) should be done according to state law.
8. Schedule(s) per Report of Committee on Infectious Disease, *1986 Red Book.*
9. For low risk groups, the Committee on Infectious Diseases recommends the following options: ① no routine testing or ② testing at three times—infancy, preschool, and adolescence. For high risk groups, annual TB skin testing is recommended.
10. Present medical evidence suggests the need for reevaluation of the frequency and timing of hemoglobin or hematocrit tests. One determination is therefore suggested during each time period. Performance of additional tests is left to the individual practice experience.
11. Present medical evidence suggests the need for reevaluation of the frequency and timing of urinalyses. One determination is therefore suggested during each time period. Performance of additional tests is left to the individual practice experience.
12. Appropriate discussion and counselling should be an integral part of each visit for care.
13. Subsequent examinations as prescribed by dentist.

N.B.: **Special chemical, immunologic, and endocrine testing** are usually carried out upon specific indications. Testing other than newborn (e.g., inborn errors of metabolism, sickle disease, lead) are discretionary with the physician.

Key: ● =to be performed: S=subjective, by history: ○=objective, by a standard testing method.

September 1987

Health supervision guidelines from *Recommendations for Preventive Pediatric Health Care,* AAP Committee on Practice and Ambulatory Medicine, 1987.

Some doctors and clinics do not follow the AAP guidelines. Some health programs do not pay for preventive health care that meets these guidelines. Despite these barriers, children should still receive the recommended services.

Ideally, all preventive care and illness care should be provided by a single source of medical care, the child's "medical home." Fragmentation of care by inappropriate use of emergency rooms for minor illnesses, and seeking care from a variety of different providers without careful maintenance of a comprehensive medical record result in poor health care. However, when the child's regular source of care does not provide all the routine minimum services as outlined in Figure 9-1, every effort should be made to find community agencies to fill in the gaps (e.g., Society for Prevention of Blindness provides vision screening, lead detection programs do blood testing). Information obtained from special screening programs should always be forwarded (with parental consent) to the child's usual source of health care to be considered with the rest of the child's health data.

### How health is assessed

A child's health should be assessed by a variety of individuals who have unique skills and experience with the child. This health team is usually informally coordinated by the child's physician or another member of the health team as the child's special needs suggest. The child's health team consists of the child's parents, teachers, and others who regularly observe and interact with the child in addition to health professionals (see Figure 9-2). Each health team member has a special perspective to offer about growth, development, and overall health. This information should be shared with the health team coordinator so that a comprehensive picture of the child can be created. The clear designation of the health team coordinator is especially important for children with multiple health and developmental problems.

The assessment process is based on information from a variety of sources: health histories, observations by the health team, screening tests, and medical examinations. Health assessment and follow-up care are often separated into three categories: **screening, diagnosis,** and **treatment.**

- Screening is the use of quick, inexpensive, and simple procedures to identify children who may have a problem in a specific area. Health screening tests typically produce one of these three possible results.

| **Screening result** | **Action needed** |
|---|---|
| • apparently healthy (negative) | • none |
| • possibly at risk | • repeat screening test |
| • at risk (positive) | • refer for further diagnosis and possible treatment |

- **Diagnosis** is a more detailed evaluation to find out if there is, in fact, a health problem and, if so, what it is. When making a diagnosis, the health professional may use health histories, dietary information, laboratory test results, family/teacher observations, X-rays, or physical and psychological examinations.
- **Treatment** is designed to control, minimize, correct, or cure a disease or abnormality (e.g., eyeglasses, fillings for dental caries, therapy). *Treatment is the key to an effective program.* Without it, screening and diagnosis are meaningless.

## Health histories

Health histories provide important information about the child's prior health experiences and risks for future disease. The family health history may help predict what illnesses the child may inherit or develop. The physician will take a detailed health history including information about birth, illnesses, hospitalization, all treatments, immunization status, and current health concerns.

Programs for young children should also have a history form, but it needs to cover only major health problems and developmental concerns. This information can help explain a child's current behavior and past experience.

Parents know a great deal about their own child. However, unless there is a specific request for it, few parents will review their child's nutritional, immunization, health, and family history. Even the most alert parent may innocently overlook the health needs of a rapidly changing and growing child because of other urgent demands.

When your program requests a child's health history, you will help reinforce the parents' role in retaining important health information. You can assist parents in reviewing the child's health record for general health strengths and weaknesses. A developmental health history form is presented in Figure 9-3. Use it as a guide to develop one that meets your needs.

## Figure 9-2. Potential health team members

An **allergist** is a medical doctor with special interest and training in diseases of the immune system including allergies (certified by the American Board of Allergy).

An **audiologist** is a specialist in hearing problems.

A **dentist** is a specialist who cares for and treats the teeth and gums.

A **neurologist** is a medical doctor with special interest and training in brain and nervous system disorders.

A **nutritionist** is a professional with interest and training (a masters degree) in nutrition, who evaluates a person's food habits and nutritional status. This specialist can provide advice about normal and therapeutic nutrition, feeding equipment, self-feeding techniques and food service.

An **occupational therapist** evaluates and treats children who may have difficulty performing self-help, play, or other independent activities.

An **ophthalmologist** is a medical doctor who evaluates, diagnoses, and treats disease, injuries, or birth defects that limit vision.

An **optician** advises in the selection of frames and fits the lenses prescribed by the optometrist or ophthalmologist to the frames. An optician also fits contact lenses.

An **optometrist** examines the eye and related structures to determine the presence of visual problems, eye disease, or other problems.

An **orthopedist** is a medical doctor who evaluates, diagnoses, and treats diseases and injuries to muscles, joints, and bones.

An **otorhinolaryngologist** (E.N.T. doctor) is a medical doctor who screens, diagnoses, and treats ear, nose, and throat disorders.

An **otologist** is a medical doctor who screens, diagnoses, and treats ear disorders.

A **pediatrician** is a medical doctor who specializes in prevention and management of childhood diseases and problems. (Certified by the American Board of Pediatrics or the Osteopathic Board of Pediatrics or English or Canadian equivalents.)

A **physical therapist** evaluates and plans physical therapy programs and equipment to promote self-sufficiency primarily related to gross-motor skills such as walking, sitting, and shifting position.

A **psychiatrist** is a medical doctor who screens, diagnoses, and treats psychological, emotional, behavioral, and developmental or organic problems. Psychiatrists can prescribe medication. They generally do not administer tests.

A **psychologist** screens, diagnoses, and treats people with social, emotional, psychological, behavioral, or developmental problems.

A **social worker** provides services for individuals and families experiencing a variety of emotional or social problems. These services may include individual, family, or group counseling; advocacy; or consultation with programs, schools, clinics, or social agencies.

A **speech-language pathologist** screens, diagnoses, and treats children and adults with communication disorders. This person may also be called a **speech clinician** or **speech therapist.**

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From *Mainstreaming Preschoolers Series* by U.S. Department of Health and Human Services, 1978. Washington, DC: U.S. Government Printing Office.

## Figure 9-3. Developmental health history

Child's name ______________________________ Birth date ____________
(last) (first)

Nickname ______________________________

### Physical health

What health problems has your child had in the past? ______________________________

______________________________

What health problems does your child have now? ______________________________

______________________________

**Other than what you listed above—**

Does your child have any allergies? ______________________________

If so, to what? ______________________________

______________________________

How severe? ______________________________

Does your child take any medicine regularly? If so, what? ______________________________

Has your child ever been hospitalized? If so, why and when? ______________________________

______________________________

Does your child have any recurring chronic illness or health problem (such as asthma or frequent earaches)? ______________________________

Does your child have a disability which has been diagnosed (such as cerebral palsy, seizure disorder, developmental delay)? ______________________________

______________________________

Do you have any other concerns about your child's health? ______________________________

______________________________

______________________________

______________________________

## Figure 9-3 cont. Developmental health history

### Development (compared to other children this age)

Does your child have any problems with talking or making sounds? Please explain. ____________________

Does your child have any problems with walking, running, or moving? Please explain. ____________________

Does your child have any problems seeing? Please explain. ____________________

Does your child have any problems hearing? Please explain. ____________________

Does your child have any problems using her or his hands (such as with puzzles, drawing, small building pieces)? Please explain. ____________________

### Daily living

What is your child's typical eating pattern? ____________________

Write **N/A** (non-applicable) if your child is too young for the following questions to apply.

What foods does your child like? ____________________ Dislike? ____________________

How well does your child use table utensils (cup, fork, spoon)? ____________________

How does your child indicate bathroom needs? Word for urination ____________________

Word for bowel movement ____________________ Special words for body parts ____________________

What are your child's regular bowel and bladder patterns? Do you want us to follow a particular plan for toileting? ____________________

### Figure 9-3 cont. Developmental health history

**For toddlers,** please describe use of diapers or toileting equipment (such as potty, toilet seat adapter).

______________________________

What are your child's regular sleeping patterns?

Awakes at ________ Naps at ________ Goes to bed at ________

What help does your child need to get dressed? ________

______________________________

## Social relationships/play

What ages are your child's most frequent playmates? ________

Is your child friendly? ________ Aggressive? ________ Shy? ________ Withdrawn? ________

Does your child play well alone? ________

What is your child's favorite toy? ________

Is your child frightened by animals? Rough children? Loud noises? The dark? Storms? Anything else?

______________________________

Who does most of the disciplining? ________

What is the best way to discipline your child? ________

______________________________

With what adults does your child have frequent contact? ________

______________________________

How do you comfort your child? ________

______________________________

Does your child use a special comforting item (such as blanket, stuffed animal, doll)? ________

______________________________

Parent's signature ________

Date ________

## Observations

### Physical health

Physical health observations may be organized into signs and symptoms.

- **Signs** are *specific observations* (coughing, vomiting, or swelling).
- **Symptoms** are internal and *must be described* in order to be known to others (nausea, headache, or stomachache).

Signs and symptoms may occur together (vomiting from nausea or pulling on an ear from ear pain). Since young children often cannot express symptoms, your objective observations of signs usually provide the best clues. Precise physical observations are the most helpful. It is more useful to say, "Jeffrey has a frequent dry cough, flushed cheeks, and a runny nose with thick yellow mucus" than to say, "Jeffrey looks sick." Report your specific observations rather than drawing conclusions or making a diagnosis. For instance, say, "Jennifer has a sore throat and an oral temperature of 102°" rather than saying, "Jennifer has strep throat." State measurable facts whenever possible. A form to record symptoms of minor illness helps focus attention on significant observations (see Figure 18-1 on p. 282).

Nancy P. Alexander

*When gathering observations about a child, remember that each person has a different perspective in obtaining health information.*

Use all your senses (smell, hearing, seeing, touching) when making health observations. Observe clues such as the texture of skin, breath odor, the appearance of a bruise, or the sound of a cough. Sometimes it is difficult to judge what is significant. Observe the group in general and compare individual children. For example, do most of the children need help zipping their coats? If so, the fact that Susan asks for help is not a concern. If a child differs significantly from others in the group, it is worth noting.

Each observer has a different perspective in obtaining health information. Parents compare a child to her or his typical appearance or behavior or to siblings or friends. Teachers may have a similar view but also observe children in a group setting with many children of the same age. The physician or health provider uses the knowledge and experience from medical practice. Each view is valuable but limited; to have a total picture of the child, all observations from the health team must be shared and seen as a whole.

### Development

A child's physical health is only one aspect of her or his life. An equally important aspect is the development of language, gross and fine motor skills, social-emotional competence, and cognition (thinking). Problems in these areas often can be identified and worked out during the early years. Program staff are ideally suited to observe such problems and should develop capabilities in these areas.

1. **Developmental milestones.** Knowledge of general child development with in-depth information about the particular age of children in their group helps to provide a general framework to identify those whose abilities fall outside the normal range. These milestones must be viewed flexibly since a child's development is greatly influenced by childrearing styles, culture and ethnic norms, and by the child's own temperament.

Figure 9-4 at the end of this chapter contains a useful guide to observe children from ages 3 to 5 in group settings. This guide will help you identify signs of potential trouble in areas of development. Use it as a screening **aid**, not a developmental test or standard assessment tool, since it is neither of these.

Figure 9-5 contains reviews of four developmental screening instruments. These standardized screening tools are frequently used by health providers as a framework for reviewing the range of normal childhood behaviors and developmental skills for children. Check with your local agencies to see who administers these instruments regularly in your community.

2. **Observation and documentation.** Write down behaviors or moods that might suggest problems in a child's development. (You can keep file cards in your pocket and note on them the day, time, activity, and behavior you have observed.) Ask other staff members to also observe and record the child's behaviors. Then look for patterns in the child's behavior. Is the behavior influenced by particular children or adults who are present or by times of the day or days of the week? You may also need to look for additional information in the child's environment. Perhaps there is a new baby in the family or an undiagnosed medical condition. Determine the appropriate next steps to take, and plan a meeting to discuss your concerns with the child's parent(s).

3. **Communication.** Cultivate your ability to communicate concerns about unusual or delayed development to parents in a supportive, nonthreatening manner. Parents are experts on their children and should be involved in discussions about developmental concerns early in the screening process. Their input can help you identify which behaviors are appropriate for the family and culture and which are not, and which behaviors or traits are of particular concern to the parents. Often they have questions similar to yours, but may not have wanted to bother the staff or appear to be overly anxious. Dealing with these concerns in a respectful partnership can be a great help and support.

4. **Referral and consultation.** Seek information on community resources for referral and consultation. Many communities have a wide array of experts on every aspect of child development. Once a problem has been identified and confirmed by parents and other staff members, you should be familiar enough with your community to be able to make an appropriate referral to a competent and sympathetic diagnostician. A list of local services should be developed and kept at the center so that referrals can be made easily.

## Major health screenings

### Value of screening for the apparently well child

The AAP recommends a minimum number of screening tests for sound health care; Head Start requires its programs to perform a similar set. These tests try to identify conditions which, if undetected and untreated, may seriously handicap a child for life. These conditions are important to discover, occur quite often, and generally respond to early

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*Screening involves short and simple procedures because it is intended for large numbers of apparently well children.*

treatment. Early treatment is often more effective and less costly than later treatment and may also prevent the development of other problems.

For instance, children with undetected hearing loss risk developing language, learning, and behavior problems. Children with eyes that are not straight and children with a marked difference in visual acuity between eyes risk developing amblyopia (loss of vision in one eye due to lack of normal use). If decreased vision in one eye is not treated during the early years, treatment in the school-age years is slow and often unsuccessful.

**Screening** generally involves short and simple procedures because it is intended for large numbers of apparently well children. A good screening may identify a few children who turn out not to have a problem, but it should miss very few who do have the problem. Without screening, problems may go unnoticed or, if signs or symptoms are recognized, their significance may not be understood.

Cleo Freelance Photo

*Normal vision acuity for young children follows a developmentally determined pattern. Early detection and treatment of problems is more effective and less expensive than later treatment.*

Another reason for screening the apparently well child is that young children are in a period of rapid growth and development. There are milestones that the child can be expected to reach within a certain range of time. Given the child's basic body structure, growth should follow a predictable pattern. The child should be able to accomplish certain tasks by a certain age. An abnormal screening test result is a clue that something is wrong, that a further look is needed. Abnormal screening results should be interpreted by the child's usual source of health care so appropriate further evaluation can be planned. Premature referral to a specialist in one area may neglect the possibility that the abnormality is part of a multi-system problem.

To be valuable, a screening program must include

- parent education about the screening
- parent involvement and consent
- use of a valid, reliable tool appropriate for the age
- practice by the screener
- screening and rescreening all children who may have a problem before making referrals
- written information provided to the parents when further examination is suggested
- parental choice of the health professional to follow up
- information received from the health professional about examination results

### Vision screening

Developmental vision problems may be most effectively corrected during the preschool years. This is especially true in the areas of vision acuity (the ability of each eye to distinguish detail both near and far) and vision skills (the ability to use both eyes efficiently and effectively as a coordinated team).

All 3- and 4-year-old children should have a full eye examination that includes evaluation of general eye health, near and far vision acuity, and several types of vision skills. This type of screening can be performed in a pediatrician's or family practitioner's office or by a vision specialist. Every child should participate in a basic vision screening program. Many people believe that preschool children are too young to be tested. In fact, most **can** cooperate with a vision screening program. Any child who cannot perform well on basic vision screening by age 4 should be referred to a vision specialist. Two types of effective and efficient vision acuity screening can be done by program staff.

**Informal screening** is done by observing the child at play. The persistent symptoms listed in Figure 9-4 may indicate the need for a thorough eye exam.

**Formal screening** is done with an age-appropriate, standardized screening tool designed to identify some of the most common problems found in young children. Other problems may only be found through further testing.

The Snellen E (Tumbling E) and the Broken Wheel tests are recommended formal screening tools for 3- to 5-year-old children. See p. 302 in Appendix 1 for ordering information. Various picture identification tests are generally considered less accurate. If you are interested in doing vision screening, it is important that you receive training; talk first with your health consultant.

Any screening program is valuable only if follow-up occurs. Parents should choose specialists who have training and experience with young children and who seem to enjoy working with this age child.

Normal vision acuity for young children follows a developmentally determined pattern. At age 3, 20/40 vision is normal (the child sees at 20′ what a normal adult sees at 40′). Any difference in vision between the child's two eyes requires further evaluation. Many 5- and 6-year-old children have (normal) 20/30 vision. By 7 years, 20/20 vision in both eyes is expected.

**Do not assume that children will outgrow vision problems.** Some problems get worse. Early detection permits early treatment that will correct the problem more completely and that is less expensive than later treatment.

### Hearing screening

A child who does not hear clearly will have trouble imitating sounds and developing language. Behavior can also be affected. Learning to read and to write will be difficult. Finally, permanent hearing loss may occur. Hearing problems may be hereditary or the result of certain illnesses during pregnancy or early childhood. Temporary or intermittent hearing loss may be caused by chronic ear infection, a heavy buildup of wax in the ear, or chronic fluid in the middle ear.

Hearing loss may be readily observed when the loss is fairly severe. There are signs that can alert adults to milder loss also. An infant who does not hear well will not startle at a sudden noise, will not search with the eyes for the source of a noise, will not respond to a musical toy or a parent's voice unless the parent is seen, and will be slow to imitate sounds and respond to simple commands or the sound of her or his name. Older children with hearing problems may have smaller vocabularies, use shorter sentences, and seem to understand less than other children the same age. These signs may indicate intermittent hearing loss as a result of an ear infection or middle ear fluid.

Hearing screening for infants can be easily performed around 6 months of age using a set of toys that make noise at specific frequency. The test involves making the noise out of sight (about 3′ away) from the child to see if the child turns to the direction from which the noise came. This is called the Downs Hearing Screen (after Marion Downs who developed the procedure). Some health professionals use this test routinely. Others rely on reports about how the child responds to sound from parents.

The **pure tone audiometry** is the typical hearing test and checks a child's ability to hear quiet sounds at four different pitches or frequencies. It can be done on 3- and 4-year-olds with ease, and can be used with some 2-year-olds. The test requires putting a toy in a box or raising the hand when a sound is heard through the earphones.

The following two tests may be appropriate primarily for selected high-risk children. **Tympanometry** measures the pressure required to move the eardrum (middle ear) and the way the eardrum moves. If fluid is present in the middle ear, it may cause negative pressure and decrease the eardrum's ability to move. Fluid in the middle ear can affect the child's ability to distinguish sounds clearly. This test can be done on children age 3 and older.

**Acoustic reflex screening** measures the contraction of a muscle in the middle ear in response to a loud sound. If the contraction (reflex) is absent, there may be fluid in the ear or incomplete healing from a recent infection. This test can be done on very young children.

Because children are more comfortable and secure in familiar surroundings with familiar adults, screening may be more successful if you bring the screeners to your program. Prepare the children for what to expect, and follow through on referrals. Be sure to notify the child's usual source of health care about any screening results to avoid duplication and

Marietta Lynch

*A child's height and weight should be measured regularly and recorded on a chart that permits comparison with normal growth patterns. These measurements can integrate learning about mathematics, science, self, and health.*

to promote coordination of screening results with the rest of the child's health data.

### Measuring height and weight

Height and weight should be measured regularly and recorded on a chart that permits comparison with normal growth patterns. These measurements are one of the best ways to detect physical growth patterns that may indicate a serious problem. Head circumference (measurement around the head) should also be measured for children from birth to 2 years of age.

Growth measurements will usually be done by the child's health care provider. You should receive this information with the child's physical examination report. In some cases, you may also want to measure the children's height and weight as part of the health curriculum. These measurements integrate learning about mathematics, science, self, and health.

### Lead screening

Lead is everywhere—both in nature and in manufactured products (see Chapter 15). Lead screening is extremely important because even very low elevations of lead can cause permanent problems in learning and behavior. Lead screening is performed by a simple finger-prick blood test. The Centers for Disease Control recommend that children who live in high-risk areas should be tested every 6 months to 1 year. For additional information about lead poisoning, see Chapter 15. The AAP recommends that the erythrocyte protoporphyrin (EP) test be used for screening children for lead toxicity. (This test also finds iron deficiency.) Ideally, all preschool children should be screened for lead, but highest priority should be given to children ages 1 to 3 years who live in or are frequent visitors in older, dilapidated buildings.

## Medical examinations

A medical examination is a comprehensive review by a physician or nurse practitioner of all the health information gathered from the health history, health observations, and screening tests. The examination includes an interview with the parent or guardian to get current health information and a record of immunizations, a complete physical examination, and laboratory tests as necessary (e.g., blood or urine). A dentist or eye specialist may also be involved. Medical examinations should be done frequently during the first 3 years of life, and yearly after age 3. The results of medical examinations should be reported in detail on the child's health exam form (Figure 9-6). At a minimum, the form should include

- a description of any health condition that may affect the child's participation in child care
- history of significant illness and/or hospitalizations

- immunization status
- reports of any screening or assessment
- any significant observations of the parents' or siblings' health
- notations about physical, mental, and social development

A complete and detailed health form should give you an accurate picture of the child's unique development and health status. It should help you have realistic expectations and to plan appropriate activities. If the form is incomplete, the director, health consultant, or parent should contact the health provider for additional information. If any of the information is unclear, you should ask questions. Ask the health provider to give you practical, concrete information. Your program's health policies should require that these forms be on file prior to enrollment based on an examination dated as the most recent appropriate one according to the AAP guidelines for routine health care. The forms should be updated each year for children older than 3 years of age and at least every 6 months for younger children.

## Figure 9-4. Developmental red flags for children ages 3 to 5

Teachers and parents of young children frequently wonder if particular behaviors are something they should worry about. There is no way to make these decisions simply or with total certainty. Observation and screening tools are always limited because they summarize enormous amounts of information. The Preschool Enrichment Team, Inc., has developed this material as a development observation tool for children ages 3 to 5.

The most useful tool in observing young children is a **thorough knowledge of normal growth and development. There is no substitute.** The process of development varies with each individual child, but normal development follows a predictable sequence of stages. Interruptions in the **pattern** and **sequence of stages** should put an observer on the alert.

Variations in the **timetable** of a child's development are of much less concern. Each age and stage of development is affected by the personality of each child and represents the skills the child has developed: motor, language, cognitive, personal-social. Children are continuously changing and emerging from younger stages into older stages in all four areas, thereby combining characteristics of both stages.

### What are red flags?

Red flags are behaviors that should warn you to **stop, look,** and **think.** Having done so, you may decide there is nothing to worry about, or that a cluster of behaviors signals a possible problem. These guidelines will help you use red flags more effectively.

- Behavior descriptions are sometimes repeated under different areas of development. It is difficult to categorize children's behavior. Your job is to notice and describe what you see that concerns you. Do not try to decide into which category it fits.
- Look for **patterns** or **clusters** of red flags. One, or a few in isolation, may not be significant.
- Observe a child in a variety of situations in order to watch for the behaviors that concern you.
- Compare the child's behavior to the "norm," that should include children who are 6 months younger or 6 months older as well as the same age.
- Note how the child has grown during the past 3 to 6 months. Be concerned if you feel the child has not progressed.

Steve and Mary Skjold Photographs

*Each child's development is affected by personality, temperament, family structure and dynamics, culture, experiences, physical characteristics, and the match of child and family to your program.*

## Figure 9-4 cont. Developmental red flags for children ages 3 to 5

- **Know normal growth and development.** What may be a red flag at one age can be a perfectly normal behavior at another.
- Keep in mind that each child's development is affected by personality, temperament, family structure and dynamics, culture, experiences, physical characteristics, and the match of child and family to your program.
- Use a detailed skills list to develop a skills profile for the child.

### Consultation and referral

None of us knows all there is to know about normal growth and development. Use all of your area resources to help you think about a child.

- Describe in detail what you see that concerns you. Do not try to conclude what it means or to label it. It is much more helpful to parents, consultants, and to the child to have descriptions, not conclusions.
- Talk with the child's parent(s).
- Wait and watch for a while **if** you have observed growth in the past 3 to 6 months. If no growth in the area of concern can be described, then it is time to ask for help.
- Know that if you recommend further evaluation of a problem and your concerns are confirmed, you have helped a child and family begin to solve a problem.
- Also, be glad if further evaluation does not indicate that there is a problem at this time.

**NOTE: These categories are intended to guide your observation of children ages 3 to 5 only.**

### Major developmental areas

**Social-emotional development, that includes**

- relationships
- separations
- involvement
- focusing
- affect
- self-image
- anxiety level
- impulse control
- transitions

**Red flags.** Be alert to a child who, compared with other children the same age or 6 months older or younger,

- does not seem to recognize self as a separate person, or does not refer to self as "I"
- has great difficulty separating from parent or separates too easily
- is anxious, tense, restless, compulsive, cannot get dirty or messy, has many fears, engages in excessive self-stimulation
- seems preoccupied with own inner world. Conversations do not make sense.
- shows little or no impulse control; hits or bites as first response; cannot follow a classroom routine
- expresses emotions inappropriately (laughs when sad, denies feelings); facial expressions do not match emotions
- cannot focus on activities (short attention span, cannot complete anything, flits from toy to toy)
- relates only to adults. Cannot share adult attention, consistently sets up power struggle, or is physically abusive to adults
- consistently withdraws from people, prefers to be alone; no depth to relationships; does not seek or accept affection or touching
- treats people as objects; has no empathy for other children; cannot play on another child's terms
- is consistently aggressive, frequently hurts others deliberately; shows no remorse or is deceitful in hurting others

**How to screen**

1. Observe child

- Note overall behavior. What does the child do all day? With whom? With what does child play?
- Note when, where, how frequently, and with whom problem behaviors occur.
- Describe behavior through clear observations. Do not diagnose.

2. Note family history

- Makeup of family. Who cares for child?
- Has there been a recent move, death, new sibling, or long or traumatic separations?
- What support does family have—extended family, friends?

3. Note developmental history and child's temperament since infancy

- activity level
- regularity of child's routine—sleeping, eating
- distractability

## Figure 9-4 cont. Developmental red flags for children ages 3 to 5

- intensity of child's responses
- persistence/attention span
- positive or negative mood
- adaptability to changes in routine
- level of sensitivity to noise, light, touch

**Community resources**

- child's health care provider
- mental health center
- family service organization
- child guidance center
- school system's early childhood special needs coordinator
- birth-to-6 resource directory or regional offices, Department of Education
- early intervention programs
- integrated preschool programs and outreach and training teams
- regional offices of your department of public health
- libraries

**Motor development—Fine motor, gross motor, perceptual, that includes**

- quality of movement
- level of development
- sensory integration

**Red flags.** Pay extra attention to

- the child who is particularly uncoordinated and who
  —has lots of accidents
  —trips, bumps into things
  —is awkward getting down/up, climbing, jumping, getting around toys and people
  —stands out from the group in structured motor tasks—walking, climbing stairs, jumping, standing on one foot
  —avoids the more physical games
- the child who relies heavily on watching own or other peoples' movements in order to do them and who
  —may frequently misjudge distances
  —may become particularly uncoordinated or off balance with eyes closed
- the child who, compared to peers, uses much more of her or his body to do the task than the task requires and who
  —dives into the ball (as though to cover the fact that she or he cannot coordinate a response)
  —uses tongue, feet, or other body parts excessively to help in coloring, cutting, tracing, or with other concentration
  —produces extremely heavy coloring
  —leans over the table when concentrating on a fine motor project
  —when doing wheelbarrows, keeps pulling the knees and feet under the body, or thrusts rump up in the air
- the child with extraneous and involuntary movements, who
  —while painting with one hand, holds the other hand in the air or waves
  —does chronic toe walking
  —shows twirling or rocking movements
  —shakes hands or taps fingers
- the child who involuntarily finds touching uncomfortable and who
  —flinches or tenses when touched or hugged
  —avoids activities that require touching or close contact
  —may be uncomfortable lying down, particularly on the back
  —reacts as if attacked when unexpectedly bumped
  —blinks, protects self from a ball even when trying to catch it
- the child who compulsively craves being touched or hugged. Or, the older child who almost involuntarily has to feel things to understand them. These children may
  —cling to, or lightly brush, the teacher a lot
  —always sit close to or touch children in a circle
  —be strongly attracted to sensory experiences such as blankets, soft toys, water, dirt, sand, paste, hands in food
- the child who has a reasonable amount of experience with fine-motor tools but whose skill does not improve proportionately, such as
  —an older child who can still only snip with scissors or whose cutting is extremely choppy
  —a child who uses extremely heavy crayon pressure
  —an older child who still cannot color within the lines on a simple project
  —an older child who frequently switches hands with crayon, scissors, paintbrush
  —an experienced child who tries but still gets paste, paint, sand, water everywhere
  —a child who is very awkward with, or chronically avoids, small manipulative materials
- the child who has exceptional difficulty with new but simple puzzles, coloring, structured art projects, and drawing a person, and who, for example may

## Figure 9-4 cont. Developmental red flags for children ages 3 to 5

—take much longer to do the task, even when trying hard, and produce a final result that is still not as sophisticated compared to peers
—show a lot of trial-and-error behavior when trying to do a puzzle
—mix up top/bottom, left/right, front/back, on simple projects where a model is to be copied
—use blocks or small cubes to repeatedly build and crash tower structures and seem fascinated and genuinely delighted with the novelty of the crash (older child)
—still does a lot of scribbling (older child)

**How to screen**

1. Note level and quality of development as compared with other children in the group.

**Community resources**

- child's health care provider
- Registered Physical Therapist (RPT), Registered Occupational Therapist (OTR), preferably with pediatric experience
- school system's early childhood special needs coordinator
- rehabilitation center
- regional office of Department of Public Health
- hospital/physical or occupational therapy department
- American Physical Therapy Association, local chapter
- American Occcupational Therapy Association, local chapter

### Speech and language development, that includes

- articulation (pronouncing sounds)
- dysfluency (excessive stuttering—occasional stuttering may occur in the early years and is normal)
- voice
- language (ability to use and understand words)

**Red flags**

- articulation. Watch for the child
  —whose speech is difficult to understand, compared with peers
  —who mispronounces sounds
  —whose mouth seems abnormal (excessive under- or overbite; swallowing difficulty; poorly lined-up teeth)
  —who has difficulty putting words and sounds in proper sequence
  —who cannot be encouraged to produce age-appropriate sound
  —who has a history of ear infections or middle ear disorders

**NOTE:** Most children develop the following sounds correctly by the ages shown (i.e., don't worry about a 3-year-old who mispronounces *t*).

2 years—all vowel sounds
3 years—*p, b, m, w, h*
4 years—*t, d, n, k, h, ng*
5 years—*f, j, sh*
6 years—*ch, v, r, l*
7 years—*s, z,* voiceless and voiced *th*

- dysfluency (stuttering). Note the child who, compared with others of the same age,
  —shows excessive
    repetitions of sounds, words (m-m-m; I-I-I-I-)
    prolongations of sounds (mmmmmmmmmmmmmmmmm)
    hesitations or long blocks during speech, usually accompanied by tension or struggle behavior
    putting in extra words (um, uh, well)
  —shows two or more of these behaviors while speaking
    hand clenching
    eye blinking
    swaying of body
    pill rolling with fingers
    no eye contact
    body tension or struggle
    breathing irregularity
    tremors
    pitch rise
    frustration
    avoidance of talking
  —is labeled a stutterer by parents
  —is aware of her or his dysfluencies
- voice. Note the child whose
  —rate of speech is extremely fast or slow
  —voice is breathy or hoarse
  —voice is very loud or soft
  —voice is very high or low
  —voice sounds very nasal
- language (ability to use and understand words). Note the child who
  —does not appear to understand when others speak, even though hearing is normal
  —is unable to follow one or two-step directions
  —communicates by pointing, gesturing
  —makes no attempt to communicate with words
  —has small vocabulary for age
  —uses parrot-like speech (imitates what others say)
  —has difficulty putting words together in a sentence

## Figure 9-4 cont. Developmental red flags for children ages 3 to 5

—uses words inaccurately
—demonstrates difficulty with three or more of these
  making a word plural
  changing tenses of verb
  using pronouns
  using negatives
  using possessives
  naming common objects
  telling function of common objects
  using prepositions

**NOTE:** Two-year-olds use mostly nouns, few verbs. Three-year-olds use nouns, verbs, some adverbs, adjectives, prepositions. Four-year-olds use all parts of speech.

**How to screen**

1. Observe child. Note when, where, how frequently, and with whom problem occurs.
2. Check developmental history—both heredity and environment play an important part in speech development.
3. Look at motor development, that is closely associated with speech.
4. Look at social-emotional status, that can affect speech and language.
5. Write down or record speech samples.
6. Check hearing status.
7. Note number of speech sounds or uses of language.

**Community resources**

- child's health care provider
- school system's early childhood special needs coordinator
- college or university, Communication Disorders department
- speech clinic
- hospitals
- medical schools
- Head Start program
- speech practitioner
- early intervention program
- American Speech-Language-Hearing Association
- also see social-emotional resources

### Hearing

Even a mild or temporary hearing loss in a child may interfere with speech, language, or social and academic progress. If more than one of these red flag behaviors is observed, it is likely that a problem exists.

**Red flags**

- speech and language. Look for the child
  —whose speech is not easily understood by people outside the family
  —whose grammar is less accurate than other children of the same age
  —who does not use speech as much as other children of the same age
  —who has unusual voice (hoarseness, stuffy quality, lack of inflection, or voice that is usually too loud or soft)
- social behavior (at home and in school). Look for the child who
  —is shy or hesitant in answering questions or joining in conversation
  —misunderstands questions or directions; frequently says "huh?" or "what?" in response to questions
  —appears to ignore speech; hears "only what he wants to"
  —is unusually attentive to speaker's face or unusually inattentive to speaker, turns one ear to speaker
  —has difficulty with listening activities such as storytime and following directions
  —has short attention span
  —is distractible and restless; tends to shift quickly from one activity to another
  —is generally lethargic or disinterested in most day-to-day activities
  —is considered a behavior problem—too active or aggressive, or too quiet and withdrawn
- medical indications. Look for the child who
  —has frequent or constant upper respiratory tract infections, congestion that appears related to allergies, or a cold for several weeks or months
  —has frequent earaches, ear infections, throat infections, or middle ear problems
  —has had draining ears on one or more occasions
  —is mouth breather and snorer
  —is generally lethargic; has poor color

**How to screen**

1. Conduct pure tone audiometry and acoustic reflex* tests for hearing, age 3 and older.
2. Conduct tympanometry* for middle ear function, all ages
3. Note history (behavioral and medical).

*The value of these tests is being reassessed. Check with a specialist before using them.

## Figure 9-4 cont. Developmental red flags for children ages 3 to 5

**Community resources**

- child's health care provider
- college or university, Communication Disorders or Audiology department
- hearing or speech and hearing clinic
- school system
- audiologist
- ear, nose, throat specialist (otorhinolaryngologist)

**Vision, that includes**

- skills
- acuity (ability to see at a given distance)
- disease

**Red flags**

- eyes
  - —are watery
  - —have discharge
  - —lack coordination in directing gaze of both eyes
  - —are red
  - —are sensitive to light
- eyelids
  - —have crusts on lids or among lashes
  - —are red
  - —have recurring sties or swelling
- behavior and complaints
  - —rubs eyes excessively
  - —dizziness, headaches, nausea on close work
  - —attempts to brush away blur
  - —itchy, burning, scratchy eyes
  - —contorts face or body when looking at distant objects, or thrusts head forward; squints or widens eyes
  - —blinks eyes excessively; holds book too close or too far; inattentive during visual tasks
  - —shuts or covers one eye; tilts head
  - —eyes appear to cross or wander, especially when tired

**How to screen**

1. Note child's medical history. Has child had an eye exam? If not, recommend one.
2. Screen using a screening tool appropriate for young children such as the Snellen E chart or Broken Wheel cards.

**Community resources**

- for screening, contact service organizations such as women's club, Lion's club
- to be trained to screen, contact Society for Prevention of Blindness or your department of public health. Your health consultant may be able to help.
- for eye examination, refer to an ophthalmologist or optometrist

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Adapted from material by Preschool Enrichment Team, Inc., 276 High Street, Holyoke, MA 01040.

## Figure 9-5. Descriptions of four valid developmental screening instruments

### Denver Developmental Screening Test (DDST)

**Authors:** W.F. Frankenburg, J. Dodds, A. Fandal, E. Kazuk, and M. Cohrs

**Age range covered:** 2 weeks to 6 years

**Description:** The DDST consists of 105 items from which a selection is made for a specific range. The items are grouped in four areas: personal/social, fine motor/adaptive, language, and gross motor.

**Available in these languages (in addition to English):** Spanish

**Total cost:** $27.50/100 children (includes manual, materials, and score sheets)

**Order from** Denver Developmental Materials, P.O. Box 20037, Denver, CO 80220-0037. (Telephone: 303-355-4729)

**Comments:** The DDST is the best known and the most widely used developmental screening instrument available. With its wide age range, a child can be screened with the same test across a period of several years. The score sheet is constructed ingeniously and provides a great deal of normative information for the tester.

The test has been shown to be more accurate in predicting outcomes of infants and severely impaired children than in predicting the outcomes of preschoolers or mildly handicapped children. Very few children who are **not** at risk are incorrectly referred by the DDST. However, a majority of the children who **are** at risk are overlooked by this test. The low sensitivity rates indicate that although the DDST rarely overrefers children, it seriously underrefers them. Because of this problem, caution should be used when interpreting results from the DDST.

**Note:** Some pediatricians are using a modified version of the DDST known as the Revised Parental Development Questionnaire (RPDQ). This tool allows parents and caregivers to perform screening based on observations of the child's functioning.

### Early Screening Inventory (ESI)

**Authors:** S.J. Meisels and M.S. Wiske

**Age range covered:** 4 years to 6 years

**Description:** The ESI is composed of 30 items that are related to three general areas of development: visual-motor/adaptive functioning, language and cognition, and gross motor/body awareness.

**Available in these languages (in addition to English):** Spanish and Korean

**Total cost:** $39.95/30 children (includes manual, materials, and score sheets)

**Order from** Teachers College Press, c/o Harper & Row, Keystone Industrial Park, Scranton, PA 18512. (Telephone: 800-242-7737)

**Comments:** The ESI is an easily learned, brief screening instrument that samples developmental abilities, rather than school achievement, and focuses on performance in a wide range of developmental areas. The test yields a total score that can be converted into an **OK, rescreen,** or **refer** decision. Results from several reliability and validity studies demonstrate that the ESI predicts school performance with moderate to excellent accuracy through the end of second grade.

The predictive sensitivity of the ESI is somewhat higher than its specificity: It overrefers slightly more than it underrefers. Furthermore, although the test does not appear to have any inherent bias, and concurrent validity was based on a stratified sample, the long-term validity of the instrument (kindergarten to grade 4) was established with a group of low- to lower-middle SES urban, White children. Nevertheless, the ESI makes a substantial contribution to the short-term and longitudinal prediction of children at risk for learning problems or handicapping conditions.

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**Note:** From *Developmental Screening in Early Childhood: A Guide, Revised Edition* (pages 32-39) by S.J. Meisels, 1985. Washington, DC: National Association for the Education of Young Children. Copyright 1985 by National Association for the Education of Young Children.

## Figure 9-5 cont. Descriptions of four valid developmental screening instruments

### The McCarthy Screening Test (MST)

**Author:** D. McCarthy
**Age range covered:** 4 years to 6 1/2 years

**Description:** The MST consists of 6 of the 18 subtests of the MSCA: Right-Left Orientation, Verbal Memory, Draw-a-Design, Numerical Memory, Conceptual Grouping, and Leg Coordination.

**Available in these languages (in addition to English):** None

**Total cost:** $47.50/30 children (includes manual, materials, and score sheets)

**Order from** Order Service Center, Psychological Corporation, P.O. Box 9954, San Antonio, TX 78204. (Telephone: 212-517-8184)

**Comments:** The MST is a promising instrument. Because the MST is identical with six of the subtests of the MSCA, (that have an upper age range of 8 years), it may be more discriminating for academically and developmentally more advanced children than other screening tests. However, it has been distributed prematurely. Reliability and validity data have not been independently collected for the MST but are extrapolated from the data obtained with the MSCA. Furthermore, studies of the factor structure of the MST indicate that the subtests all measure parts of the same attribute (cognitive and sensorimotor functions) in varying degrees. Because no validity data were reported on the MST during its development, and no cross-validation with an independent criterion has been attempted, the MST cannot be used without some caution concerning its predictions.

### Minneapolis Preschool Screening Instrument (MPSI)

**Author:** R. Lichtenstein

**Age range covered:** 3 years, 7 months to 5 years, 4 months

**Description:** The test consists of 50 items that are divided among 11 subtests: building, copying shapes, providing information, matching shapes, completing sentences, hopping and balancing, naming colors, counting, using prepositions, identifying body parts, and repeating sentences.

**Available in these languages (in addition to English):** None

**Total cost:** $35/30 children (includes manual, materials, and score sheets)

**Order from** Special School District #1, Planning & Development Department, 807 NE Broadway, Minneapolis, MN 55413. (Telephone: 612-627-2190)

**Comments:** The MPSI is a well-developed test that excludes items requiring extensive examiner judgment (e.g., expressive language and most gross-motor items). It includes a higher proportion of classroom readiness tasks than most developmental screening tests.

While the MPSI has been subjected to a wide range of tests by its author to establish its validity, its predictive validity is based on comparisons with a teacher report scale that lacks well-established validity or replication. Nevertheless, the MPSI appears to be a good predictor of learning problems for at least a 1-year period.

**Note:** From *Developmental Screening in Early Childhood: A Guide, Revised Edition* (pages 32-39) by S.J. Meisels, 1985. Washington, DC: National Association for the Education of Young Children. Copyright 1985 by National Association for the Education of Young Children.

## Figure 9-6. Physician's exam form

Child's name ____________________________________________
last first middle

Address ____________________________________________

____________________________________________

Sex M F

Birthdate ______________/______________/______________

### OVERALL STATEMENT OF HEALTH

I examined this child on ____________________________________________.
date

(**NOTE:** This date should correspond to the last date the child was due for routine health care according to the current Guidelines for Health Supervision of the American Academy of Pediatrics.)

In my opinion this child is in ______ excellent ______ good ______ poor health.

### Notes on results of the physical exam

Weight ______________

(percentile) ______________

Height ______________

(percentile) ______________

Blood pressure ______________

Vision ______________

Audiogram ______________

Ears/nose/throat ______________

Eyes ______________

Neck ______________

Chest ______________

Lungs ______________

Heart ______________

Extremities ______________

Abdomen ______________

Neurological ______________

Coordination ______________

Recommendations ____________________________________________

____________________________________________

Restrictions ____________________________________________

____________________________________________

**Figure 9-6 cont. Physician's exam form**

Known allergies ______________________________________________

______________________________________________________________

Medications or supplements _____________________________________

______________________________________________________________

## Health history

**Prenatal, perinatal, and postnatal development.** Are there any significant findings that could influence this child's adaptation to an early childhood program (e.g., physical handicap, sensory loss, developmental irregularities)?

**Chronic illnesses.** Does the child have any chronic illness that may require regular medication, special observation, or precautions in a group setting (e.g., recurrent ear infections, seizure disorder, or allergies)?

**Hospitalizations, surgery, or special tests**

**Pertinent family, social, or health characteristics**

### Figure 9-6 cont. Physician's exam form

**Past illnesses**

| **Illness** | **Date** | **Illness** | **Date** |
|---|---|---|---|
| Diphtheria | ______ | Chicken pox | ______ |
| Pertussis | ______ | Pneumonia | ______ |
| Measles | ______ | Scarlet fever | ______ |
| Mumps | ______ | Other ______________ | ______ |
| Rubella | ______ | Other ______________ | ______ |

**Record of immunizations**

| **Type of immunization** | **Dates**<br>**1st** | **2nd** | **3rd** | **4th** | **5th** | **Booster** |
|---|---|---|---|---|---|---|
| DTP | ____ | ____ | ____ | ____ | ____ | ______ |
| Oral Polio | ____ | ____ | ____ | ____ | XXX | XXXXXX |
| MMR | ____ | XXX | XXX | XXX | XXX | XXXXXX |
| Hib | ____ | XXX | XXX | XXX | XXX | |

Other ______________________________

TB test type ______________________________ Date __________ Result ______

______________________________________________ ____________

Signature of examiner Date

Printed name of examiner ______________________________

Address ______________________________

Phone ______________________________

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## 10

# Adult health

Staff are the key ingredient in a good program for young children. They are very concerned about potential health hazards of their work. In a 1979 study of San Francisco child care workers, 67% stated that their health was negatively affected by their jobs (Child Care Employee Project, 1982). Some hazards cited by the study are increased risk of getting illnesses; presence of toxic substances in art supplies, cleaning agents, and pesticides; back problems due to frequent heavy lifting and furniture and environment designed for children; poor lighting; high noise levels; clutter; and stress.

Another major health hazard is caused by the tendency of staff to ignore their own health needs because they lack health benefits and time off, and because they feel responsible for meeting children's needs first. Programs can alleviate some of these concerns by establishing an adult health plan; by creating a positive, healthful environment; and by assisting adults to look after their own health needs.

## Ways to promote good adult health

Staff must care for themselves to be able to provide the best care for children. To help the staff in **your** program, take the time to look at your environment and program demands. How can you make yourselves more comfortable? What policies need to be revised to meet adult needs? Are you encouraging good health? Can sick adults stay home without guilt and loss of pay?

With staff and administration working together, it is possible to adjust a facility and program to the needs of the adults as well as the children. Here are examples of some simple solutions to adult health problems:

- Provide a high counter with stools, or an adult-size table and chair, for staff who do clerical, administrative, and curriculum work. Bring in adult-size folding chairs for staff meetings. Place a phone book on a child-size chair to make it a much more comfortable seat.
- Set aside private adult space and provide adequate back-up to ensure **genuine** breaks to alleviate stress.
- Train staff in proper techniques for lifting and bending to prevent leg and back strains (Figure 10-1).
- Provide gloves to use with cleaning agents to help prevent skin irritation.
- Establish preventive health policies that can reduce exposure to childhood illnesses, and practice good preventive health procedures to help keep adults and children healthy.
- Include break and substitute plans in personnel policies.

## Your adult health plan

### Health examinations

The foundation for an adult health plan is the requirement that all adults (staff and volunteers) who work or wish to work in your program have periodic health exams. The results of such exams must be strictly confidential and can be given to the employer only with the staff member's permission. Your adult health plan must specify the following for each type of examination:

- content of the exam
- who can perform the exam
- how often it must occur
- special examinations for special roles, if any
- who receives the findings
- where the examinations can be performed
- who pays for the exam

For examinations to be effective, the health pro-

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## Figure 10-1. How to care for your back

### Suggestions on how to protect your back

**Posture**

Having a firm, flattened abdomen and holding your stomach in when you stand and sit provide needed support for the lower spine.

**Sitting.** When you sit, it's important to maintain a normal spine curve. A sitting position produces greater loads on the lower back than either standing or walking. Select a chair with a firm seat and adequate lower back support. Keeping your knees bent and resting your back against the chair will prevent back strain. Don't sit too long. Get up, stretch, and walk around occasionally.

**Driving.** When driving a car, move the seat forward to keep the knees bent and higher than the hips. Often, a small pillow or towel rolled behind the lower back will provide extra support.

**Standing.** Standing can be hard on your back. Try not to work for long periods in a bent-over position. Muscles and good posture help to keep your spine in the balanced, neutral position. Abdominal muscles pull up in front and buttock muscles pull down in back to maintain the natural curve of the spine. This allows you to hold a balanced standing posture for long periods of time without tiring. Another technique is to stand with one foot elevated to a comfortable level. Switch feet every so often.

**Sleeping.** Sleeping rests the back. When you are lying down, your back doesn't have to support your body weight. It is important to use a firm mattress. Sleep on your side with knees bent or on your back with knees elevated.

**Lifting techniques**

Everyone has a lifting technique that seems most comfortable. But there are basic rules that apply to all. These rules will help control and prevent back pain.

- Step up close to your work area or to a load. Don't overreach to grasp or lift.
- Get a firm footing. Keep your feet parted; one alongside, one behind the object.
- Grip the object with the whole hand. Get a firm grip with the palms of your hands because the palms are stronger than the fingers alone.
- Draw the object close to you, with arms and elbows tucked into the sides of your body to keep your body weight centered.
- Bend knees, lift with your legs—let your powerful leg muscles do the work of lifting, not your weaker back muscles.
- Avoid lifting about the waist, but if you must, reposition your grip to keep the weight centered. Arching your back during a lift makes nerve roots susceptible to pinching and can cause weak muscles to be strained.

Twisting during a lift is a common cause of back injury. If you have to turn with a load, change the position of your feet By simply turning the forward foot out and pointing it in the direction you intend to move, the greatest danger of injury by twisting is avoided.

Proper maintenance and preventive care are the keys to a healthy back. Continue to learn how your back works and what you can do to keep it strong and flexible.

Adapted from "Facts About Backs." Copyright © 1985 by the National Safety Council. Adapted with permission.

fessional conducting the exam must know the nature and demands of the adult's job. For instance, a chronic lower back problem may not interfere with the job performance of a social worker but surely would affect the teacher of a toddler group.

**Pre-employment exams.** Ideally, the results of a health exam should be received before **a job offer is made final and before contact with the children begins.** It is hard to deal with health concerns after an individual has begun to develop relationships, and an exam that follows employment may reveal health problems to which other staff and the children have already been exposed.

Pre-employment exams should be concerned with the prospective employee's

- physical and emotional fitness for the job
- freedom from contagious diseases
- immunization status and history of childhood infectious diseases such as chicken pox and rubella
- if of childbearing age, immunity to cytomegalovirus (CMV)
- disease(s) that might cause frequent absences from the job
- condition(s) that might require emergency care
- limitation(s) in common situations such as difficulty being outdoors, skin conditions affected by frequent handwashing, allergy to art materials
- medication or special diet requirements that might affect job performance
- household members and their status regarding infectious diseases (for family day care or group home care)
- vision and hearing acuity

Pre-employment exams for bus drivers must include special tests, such as visual field, color and depth perceptions, and an electrocardiogram (EKG).

Make sure that your pre-employment exams test for poorly controlled health conditions that might affect the safety of the children (a poorly controlled seizure disorder or obvious lack of stamina, for example). If these conditions are identified after a person has been hired, you may wish to make adjustments to allow the person to continue working by providing a change to part-time work, a change in role, or a temporary leave of absence.

**Other periodic health exams.** When you develop your adult health plan, specify which of these additional exams are required.

- prior to completion of a probationary period or if health concerns have been raised
- after a severe or prolonged illness, to help identify continued disabilities, necessary modifications, and expected transition time to resume a full work role
- on return from a job-related injury, when a written release protects the program from liability for allowing the adult back on the job
- whenever a health condition seems to be affecting job performance, no matter when the last assessment was done
- when a promotion or reassignment to another role could be affected by the adult's health status
- whenever there are liability issues such as adults with a history of back injuries, more than one heart attack, mental illness, or stress-related conditions
- after certain infectious diseases to ensure the adult is no longer contagious

For an example of a staff health appraisal form, see Figure 10-2, on p. 138.

### Infectious diseases

Infectious diseases are common in groups of young children, but most are not serious and would probably spread at a similar rate from children to adults in a large family. However, because staff care for a number of young children, many of whom cannot control their secretions and have not yet learned principles of hygiene, there is the potential for spread of infections to the employee. Employees may pass infection to other employees, children, family members, and in the case of a pregnant employee or parent, to the fetus. Therefore, it is important that the employee be familiar with common infections and the measures to take to prevent them. **Details on these infections and ways to reduce their spread are contained in Chapter 17.**

**Preventing infection.** Two important barriers that help prevent the spread of infection are immunization and hygiene.

- Immunization—Safe, effective vaccines against many serious diseases including measles, mumps, rubella, diphtheria, tetanus, and polio are available. These vaccines are strongly recommended for employees. Vaccine for influenza virus (given yearly) may be advisable.
- Handwashing—Careful handwashing after contact with potentially infectious secretions along with proper handling of contaminated items is

## Figure 10-2. Staff health appraisal

**This section should be completed by the employee**

**Name and address of individual examined**

**Name of employer**

**Employer's address**

**Employer's telephone number**

| | |
|---|---|
| **Purpose of Examination**<br>☐ Initial employment<br>☐ Re-examination | **Type of Activity in Child Care (Check all applicable)**<br>☐ Food preparation ☐ Driver of vehicle<br>☐ Caring for children ☐ Desk work ☐ Facility maintenance ☐ Other |

**This Section To Be Completed By Health Professional Who Does Health Appraising**

| **Part I—As shown by physical examination, does the individual have** | **Yes** | **No** |
|---|---|---|
| 1. At least 20/40 combined vision, corrected by glasses, if needed? | | |
| 2. Normal hearing? | | |
| 3. Normal blood pressure? | | |
| 4. Normal cardiovascular system? | | |
| 5. Normal respiratory system? | | |
| 6. Normal skin? | | |
| 7. Normal neuro musculoskeletal systems? | | |
| 8. Normal endocrine system? | | |

**Explain all "No" responses on reverse of form**

| **Part II—Is the individual free from communicable tuberculosis as shown by** | **Yes** | **No** |
|---|---|---|
| 9. Negative skin test results within the past 2 years? | | |
| 10. Positive skin test followed by one negative x-ray and an asymptomatic history at this health appraisal? | | |

**Explain all "No" responses on reverse of form, giving plan for follow-up**

## Figure 10-2 cont. Staff health appraisal

| **Part III—Does this individual have any of the following medical problems:** | **Yes** | **No** |
|---|---|---|
| 11. History of myocardial infarction, angina pectoris, coronary insufficiency? | | |
| 12. History of epilepsy? | | |
| 13. Diabetes? | | |
| 14. Thyroid or other metabolic disorders? | | |
| 15. Inadequate immune status (Td, measles, mumps, rubella)? | | |
| 16. Need for more frequent health visits on sick days than average for age? | | |
| 17. Current drug or alcohol dependency? | | |
| 18. Disabling emotional disorder? | | |
| 19. Other special medical problem or chronic diseae which requires restriction of activity, medication or which might affect his or her work role? If so, specify on reverse of form. | | |
| **Explain all "Yes" responses on reverse of form, giving plan for follow-up if any** | | |
| 20. Does this individual have any special medical problems which might interfere with the health of the children or that might prohibit the individual from providing adequate care for the children? If yes, explain on reverse of form. | | |

Name and address of licensed physician

Telephone number

Signature of physician

Date of examination

**the most effective measure to prevent most spread of infectious diseases. All blood and other body fluids from all children should be handled as potentially infectious.** (See Chapter 4, Figure 4-1.)

**Special safeguards for pregnant women.** Women of childbearing age should be aware that unborn children can acquire several infectious diseases. Such infections can cause miscarriage, birth defects, or illness in the newborn. These infections include rubella, measles, mumps, hepatitis B, cytomegalovirus, herpes, and AIDS.

The first four diseases can be prevented by immunization. Routine immunization (or other proof of immunity) is strongly recommended for the first three diseases: measles, mumps, and rubella. In certain settings, an increased risk of hepatitis B infection could exist. In those cases, vaccination is recommended for persons who have daily close contact with children who have or are at high risk of having hepatitis B. Strict attention to handwashing and care with all children's blood and body fluids are the most effective safeguards for susceptible women against those infections for which there are no vaccines.

### When not to come to work

It is expected that children will catch colds and flu. Adults working daily with young children are also likely to become ill. Yet, because of the difficulty of arranging for and keeping dependable substitutes, many programs have inadequate substitute policies. The result is that many staff keep working when they are ill, convincing themselves that they really are not that sick. **Upgrading substitute coverage is critical to a well-run program even though creating a reliable substitute policy is a difficult task.** The best illness guideline to follow is this:

> *Ask adults who cannot comfortably and capably perform their daily activities to remain at home. Personnel policies should be written to allow and encourage adults to stay at home when they feel too sick to work.*

Staff often come to work when they are sick because of fear of lost pay or feelings of guilt due to inadequate substitute coverage. All staff must make a choice that balances their personal concerns and those of the program. Clearly, adults with serious illness such as meningitis or chicken pox should not be at work in a program for young children. Adults with other contagious diseases (e.g., strep throat, lice, impetigo) may return after treatment is begun (see Chapter 17). Adults with herpetic cold sores may work, but must carefully practice personal hygiene. Adults with diarrhea should not work until well or until a physician has determined the diarrhea is not infectious.

### Substitutes and breaks

Follow these suggestions for substitute and break policies.

#### Substitutes

- Consider joining with other programs to hire a sub who rotates. This allows each program some guaranteed coverage and provides dependable employment for the sub. If nobody is absent on the scheduled day, the sub can supervise while regular staff attend to parent conferences or planning, for example.
- Set a decent salary for substitutes.
- Regularly evaluate your substitute policy. Keep the sub list active; call subs periodically to make sure they are still available.
- Let parents know about the substitute procedure.

**Breaks.** Because of the cost of hiring additional staff, most programs must work with remaining personnel during staff breaks. Use the following suggestions to cope with limited staff.

- Nonteaching staff can cover breaks on different days of the week.
- Assign parents, students, and community members as "floaters." The key to making this plan work is regular scheduling and dependable volunteers! Be sure volunteers receive a thorough orientation to their duties and have the same health and skill monitoring as regular staff.
- In a well-staffed program, designate one staff member as a "floater" during break time for a week at a time. This person can become familiar with each of the classrooms and also gain perspective on the program.
- Overlap staff shifts. Perhaps afternoon shifts can begin during the last half hour of the morning shift. Although more expensive, this model covers breaks and also allows teachers time to communicate.
- Provide a relaxing space for staff. Even if space is limited, a comfortable chair placed in front of a window can serve as a place to relax. If at all possible, the budget should pay for refreshments for the staff.

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# 11

# Dental health

The type of hygiene and dental care children receive, along with diet and heredity, will determine their dental health throughout life. Your program can help prevent dental disease by serving well-balanced, nutritious food and by limiting sugared and sticky foods. You can also promote dental health by providing fluoride tablets or drops (with parental permission), teaching children and staff about good dental care by having them all brush their teeth during the day, and by looking for dental problems.

## Healthy foods for teeth

High-sugar foods are clearly linked to tooth decay. Avoid or limit sweet drinks, candy, jelly, jam, cake, cookies, sugared gelatin, and sweetened, canned fruit. Low-sugar, fresh fruit makes a great snack or dessert alternative.

Here are some important facts about sugar and teeth.

- Natural sugars (such as maple syrup and honey) are just as harmful to teeth as refined sugar.
- Sticky sweets (such as caramel) are particularly harmful because they remain on the teeth longer than other sweets.
- Eating a sweet all at once is better than eating one for a long time (such as a lollipop), or often (such as popping mints or hard candies every 20 minutes).
- Sweet, sticky fruits, such as raisins and dates, should be eaten with a meal.
- Frequent snacking is not a good idea because the teeth are attacked by the decay process throughout the day.
- Never put a baby to bed with a bottle of milk, formula, sweetened liquids, or fruit juices. The sugars in all of these liquids stay on the teeth for a long time and cause serious decay called nursing bottle mouth.
- **Never reward good behavior with candy or other sweets.**

Please refer to Chapter 12, Nutrition in programs for young children, for more information.

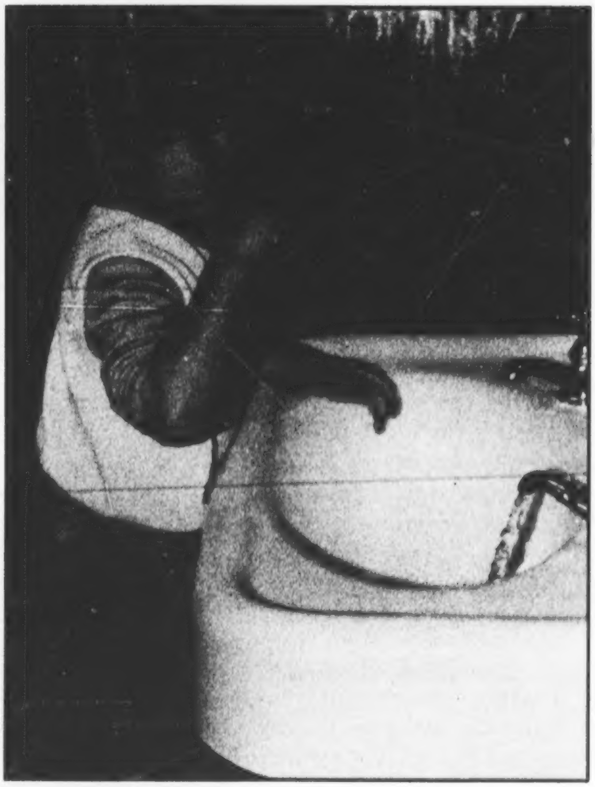
## Fluoride

Fluoridation of public water supplies is the single most effective method to prevent tooth decay. When children have fluoride in their drinking water, or fluoride supplements from birth, their tooth decay is reduced 50 to 70%! Find out if your community fluoridates its water. If not, consider using fluoride drops or tablets if parents' permission has been received. After 2 years, 25 to 35% of the children's decay could be reduced. Contact your state or local health department to locate resources for a preschool fluoride program.

## Brushing teeth

Very young children can learn good habits that will last into adulthood. Brushing teeth after lunch and/or snacks has the double benefit of cleaning teeth **and** teaching a good habit. This routine, if it is organized well, will probably not take more than 5 minutes a day. Some points to remember are

- Each child must have her or his own toothbrush, labeled by name, that must **never** be shared.
- Toothbrushes must be stored so they stay clean and open to the air. The bristles should not touch any surface. One method is to use a Styrofoam egg carton. Clean it with alcohol, turn it upside down, and punch a hole in the bottom of each egg



Nancy P. Alexander

*Teach children proper brushing technique. Both children and parents must understand the importance of good dental health.*

compartment. Store the brushes bristle-side up so they do not touch each other.

- Most dentists and hygienists recommend a small toothbrush with soft, rounded, nylon bristles; a straight handle; an even brushing surface; and a head small enough to reach every tooth. When the bristles become bent, the brush doesn't clean well and should be replaced. Brushes should be replaced about every 3 months.
- Use a small amount (about the size of a pea) of toothpaste with fluoride and encourage children to spit it out. Use this toothpaste only for children who will not swallow it because swallowed toothpaste can cause irregular doses of fluoride. To discourage children from eating toothpaste, do not use a highly flavored one.
- Have an adult supervise toothbrushing.
- Teach children proper brushing technique. Use the circular motion which is easy and effective. Guidelines for proper brushing are

—Direct the bristles at a 45° angle where the teeth and gums meet.

—Brush the outside and inside surfaces of the teeth. Place the bristles of the toothbrush where the teeth and gums come together. Move the brush in a short, circular motion, back and forth, brushing the gums as well as the teeth.

—Scrub back and forth on the chewing surfaces.

—A systematic routine will help ensure that all areas get brushed each time. Begin with the top teeth in the back on the right side. Brush the outside surface. Follow the arch around to the left side. Follow this same pattern for the inside surfaces. Brush the chewing surfaces on both sides. Brush the bottom teeth following the same routine.

—Brush the tongue.

## Dental health education

Children and parents must understand the importance of good dental health. Children can be taught effectively through an integration of dental education activities with their regular activities. Parent programs can be publicized through articles in your newsletter, parent handouts, posters, or films. Brochures that describe particular problems, conditions, or resources are frequently available from state or local health departments. Also, some dentists or hygienists are willing to come to the classroom. A field trip to a dentist who enjoys working with young children can be a wonderful introduction to regular dental care.

## Dental care

Encourage parents to follow healthy dental routines and to get regular dental care. Your program might provide the names of children's dentists (pedodontists) or family dentists who work regularly with children. Some area resources may include dental health clinics, dental school clinics, community health centers, and for emergencies, hospital emergency rooms.

A child's first visit to the dentist should be at about 3 years of age, or when all 20 baby teeth are showing (see Figure 11-1). Since children usually need little treatment at this stage, the dentist can form a friendly and relaxed relationship with the child. The dentist can also look for early signs of

## Figure 11-1. Dental referral criteria for 3-year-old children

For most children younger than age 3, a visit to a dentist is purely an educational experience. However, there are cases where consultation with a dentist is recommended. Listed below are things to observe in 3-year-old children. If you answer "no" to any of the questions, you should recommend that the child's parents consult a dentist.

### Soft tissues (tongue, lips, cheeks, gums)

- Can the child stick the tongue tip completely out of the mouth?
- Can the child swallow with the teeth together (without the tongue pushing through)?
- Are the upper and lower lip the same size?
- Is there a clear distinction between lip and skin of face?
- Is the color inside the cheeks even throughout?
- Are all gum tissues the same color? Are gums free of pimples and/or swelling?

### Hard tissues (teeth)

**Number**

- Are there 20 teeth, 10 in each jaw?
- Are there the same number of teeth on either side of the middle of the jaw?
- Are teeth on either side the same shape?

**Bite**

- When the child closes the mouth, do the top teeth bite over the bottom teeth? Do the back teeth meet?
- Do all the teeth come in contact when the jaw is closed?
- Are the teeth spaced out, not crowded?

**Color**

- Are the teeth milky white? Are they all an even color?
- Do any stains and colors come off easily with a toothbrush?

### Oral hygiene

- Are the teeth clean?
- Does the mouth have a clean, sweet odor?

Lois Main

*A good first trip to the dentist will help mold children's feelings for many years.*

future problems such as overcrowding or poor dental hygiene (cleanliness).

Try to make dental visits an important adventure. Tell children that the dentist is a friendly doctor who will help keep their teeth and mouth healthy. Talk about the visit in a positive, matter-of-fact way as you would any new experience. It is important to prevent fear. Avoid statements that suggest the visit may be unpleasant, such as, "It won't hurt." If you are fearful about dental visits, try not to let the children know. A good first trip will help mold children's feelings for many years.

You can help promote children's dental health by observing carefully. Suggest that the parent take the child to the dentist as soon as possible if any of these problems occurs.

- redness, swelling, or bleeding of the gums
- swelling of the face
- complaints of pain
- very dark or discolored teeth or holes in teeth
- complaints when the child eats hard, hot, cold, or sweet food
- broken teeth
- spaces from first teeth that fell out too early
- constant bad breath

## Special dental problems

### Broken tooth

Contact the parent and request that the child be taken to the dentist immediately. If a broken tooth is not cared for, it can be lost.

### Knocked out tooth

Contact the parent and **save the tooth!** Sometimes it can be replanted in the jaw. DO NOT clean the tooth. Simply put it in a wet cloth or in a glass of water or milk. **Rush** the child and the tooth to the dentist (within 30 to 90 minutes if possible). The sooner the child sees the dentist, the better the chance of saving the tooth.

### Toothache

Ask the parent to call the dentist at once. The dentist will find the cause of the toothache and will reduce the pain as quickly as possible. If emergency care is needed, there are temporary, emergency measures to use only when a child is in extreme pain. If a cavity can be seen in the tooth that aches, flush out any food particles with warm water. Oil of clove may be put directly into the aching tooth. Aspirin or acetominophen can be swallowed for temporary relief of pain (use these only with parental permission). Do not place aspirin directly onto the tooth. Arrange a dentist appointment immediately.

### Thumbsucking

Thumbsucking during the first several years should cause no concern. It gives the baby a feeling of pleasure and security. However, if the child continues thumbsucking beyond the age of 5, it can affect the position of the incoming permanent teeth and the shape of the jaws. The pressures of thumbsucking may push the teeth out and narrow the dental arches. Eventually orthodontic care may be needed. Work with the parents and their health care provider to help the child find a caring way to eliminate this habit.

### Nursing bottle mouth

Nursing bottle mouth is a condition that can destroy the teeth. The teeth most likely to be damaged are the upper front teeth, but others may also be affected. Nursing bottle mouth is caused by the frequent and lengthy exposure of a child's teeth to liquids containing sugars (milk, formula, fruit juice, and other sweetened liquids).

Using frequent bottles of these liquids as a pacifier is not a good idea. Allowing a child to fall asleep with a bottle during naps or at night can do serious harm to the child's teeth, since the liquids pool around the teeth for long periods of time. If a child falls asleep with a bottle, remove it and use a wet washcloth, paper towel, or napkin to wipe the liquid from all tooth surfaces.

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# Section E

## Nutrition

## Major concepts

**Guidelines for nutritious meals and snacks for children**

- Provide a variety of foods each day. One food cannot supply all the nutrients a child needs.
- Establish regular times for meals and snacks.
- Offer portions appropriate to a child's age; discourage overeating.
- Offer nourishing snacks between meals to round out a well-balanced diet. Be aware that children often need more food than they are able to eat at a regular mealtime. Limit snacks that do not provide important nutrients.
- Encourage eating habits that are consistent with good dental health.
- Avoid serving foods with excess salt, fat, and sugar.

# 12

# Nutrition in programs for young children

Good nutrition is an essential ingredient of quality child care. Tasty, colorful, nutritious foods and a pleasant, relaxed eating environment contribute to a child's sense of well-being. A child develops lifelong eating habits as a result of early eating experiences. As a child care provider, you need to know the nutritional requirements of children and how to provide a nutritious diet. Equally important is the atmosphere you create at meal and snack time.

## Feeding infants

During the first year of life, infants experience more changes in diet than at any other time in life. During this time, they grow rapidly and develop motor skills. They quickly progress from sucking liquids through a nipple to feeding themselves table foods (see Figure 12-1). Although feeding skills are developed in a systematic order, each child progresses through this sequence at her or his own pace. During this period, interaction with adults has a strong influence on the infant's development of self-feeding skills and acceptance of a variety of foods.

See Figure 12-2 for guidelines on feeding infants.

### Breast milk is best

Breast milk is the recommended food for infants because it is uniquely suited to support their growth. Breast-fed infants should be given vitamin D and fluoride supplements. Bottle-fed infants should be given iron-fortified formula. Until about 4 to 6 months of age, infants are not physically ready to eat and digest any foods except breast milk or formula.

Your program can help promote breast-feeding and support nursing mothers by following some simple guidelines.

- Provide a quiet, private place with a comfortable chair where the mother can nurse before departure, on arrival, or during her work breaks.
- Try to establish a bottle-feeding schedule that ensures the baby is eager to nurse when the mother arrives (i.e., set the feeding time for at least 2 1/2 hours before her arrival).
- Follow the guidelines for safe storage and handling of expressed breast milk (p. 183).
- Be informed about the basics of breast-feeding, and support the mother. Remember that a mother does not "lose her milk" when she bottle-feeds part-time. A full supply of breast milk can be maintained, especially if the mother breast-feeds full-time while the baby is with her.

### Introducing solid foods

Experts recommend starting solid food when infants are between 4 and 6 months old. Until this time, the infant's digestive tract is not able to completely break down the food; consequently, allergic reactions or sensitivities to solid foods may be more likely. Also, the infant's neuromuscular skills needed for self-feeding and swallowing are not well developed. Therefore, it is best not to begin semisolid foods (e.g., rice cereal) before 4 to 6 months. Between 6 and 8 months, add vegetables and fruits to the diet. At about 8 or 9 months, offer food with lumps (including table food the baby can easily chew or mash). By the end of the first year, the baby should be eating most table foods.

Use the following guidelines to help you introduce solid foods:

- Allow time for the baby to get used to the feel and taste of solid foods.
- Introduce a variety of foods to help build good food habits throughout life, but take care to **add only one new food at a time.** Wait 5 days to see that the new food is well tolerated.

## Figure 12-1. Developmental sequence of feeding skills

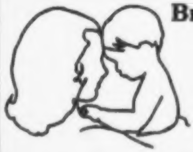
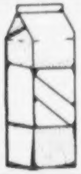
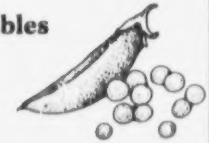
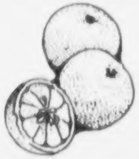
| **Age (months)** | **Oral & neuromuscular development** | **Feeding skills implications** | **Special notes** |
|---|---|---|---|
| Birth to 1 | Rooting reflex | Turns mouth toward nipple or object that brushes cheek. | Breast-fed babies need Vitamin D and fluoride supplements. Formula-fed babies need no supplements except possibly fluoride. |
| | Sucking reflex | Begins when lips are touched. | |
| | Swallowing reflex | Initially involves only the back of the tongue. By 9 to 12 weeks, the front will begin to become involved. | |
| | Extrusion reflex | | Pushes out any food placed on front of tongue. |
| 2 to 4 | Sucking reflex becomes voluntary | | |
| | Holds head erect | | |
| | Mouth poises for nipple—Anticipates food/bottle on sight | | |
| 4 to 6 | Extrusion reflex diminishes, giving way to chewing motion | Begin introduction of solid foods as infant's need for calories and certain nutrients increases that cannot be provided by breast milk or formula alone. | Start with rice cereal. Prepare with 1 tbs. formula or breast milk. Gradually increase consistency as baby gets used to it. |
| | Begins to reach mouth with hand | | See Infant feeding guide (Figure 12-2). |
| | Grasps objects voluntarily | Uses tongue to move food in mouth. Texture of food may be increased. | |
| | Moves jaw and tongue laterally<br>Sits with support | | |
| 6 to 8 | Puts lips to rim of cup | Begin to offer beverages from a cup. | Plain yogurt may replace some milk. |
| | Puts most objects into mouth | Encourage finger food. | |
| | Grasps spoon, nipple, or cup rim | Holds own bottle well. Removes food quickly from spoon with lips. | |
| | Sits without support for brief periods | Increase texture to soft, mashed table foods. | Offer strained, mashed, or bite-size pieces of cooked or soft, fresh, or canned fruits and vegetables. |
| | Begins voluntary biting and early chewing | | |

## Figure 12-1 cont. Developmental sequence of feeding skills

| | | | |
|---|---|---|---|
| 8 to 10 | Sits without support | Feeds self cracker. | Wheat products may be started. Begin meat and poultry (chopped or strained) and eggs. |
| 10 to 12 | Chews up and down | Gradually increase texture: offer whole fruits and vegetables. | May try small amounts of whole grain cereals. |
| | Closes lips around rim of cup | Drinks from cup or glass with help. | |
| | Has neat pincer grasp | Offer finger foods in small pieces. | |
| | Ceases drooling | | |
| | Tries to use spoon. | | |
| 12 to 18 | Increased rotary motion of jaw | Tries to use spoon. Give some thick foods that will stick to spoon. | Cheese or yogurt may replace some milk. |
| | | Can chew meats. | |
| | Growth rate slows considerably | | |
| | Increases independence | Appetite decreased, may refuse food. Provide small amounts. Uses spoon, may be upside down. | |
| | | Mostly feeds self. | |
| | | Holds glass/cup with two hands to drink. | |
| | | Discards bottle. | |

From *Guidelines for Feeding Infants and Young Children* by Nutrition Services of Vermont Department of Health, Burlington, VT, 1979. Adapted with permission.

### Figure 12-2. Infant feeding guide

| Foods | Birth to 4 months | 4 to 6 months | 6 to 8 months | 8 to 10 months | 10 to 12 months |
|---|---|---|---|---|---|
|  **Breast milk or iron-fortified formula** | Short frequent feedings 8 or more per day | Short frequent feedings 5 or more per day | On demand 5 or more feedings | On demand | On demand |
| | 16 to 32 oz.<br>5 to 10 feedings per day | 24 to 40 oz.<br>4 to 7 feedings per day | 24 to 32 oz.<br>3 to 4 feedings per day | 16 to 32 oz.<br>3 to 4 feedings per day<br>Can wean now from the bottle | 16 to 24 oz.<br>3 to 4 feedings per day<br>Whole milk can be offered now |
| **Water** | none | Offer 2 to 4 oz. in hot weather | Offer water from a cup between meals | Offer water between meals | Offer water between meals |
| **Cereals and bread** | none | Rice, oatmeal, or barley (spoon-fed)<br>Mix 1 to 3 teaspoons with formula or breast milk | Most varieties of infant cereal<br>Avoid cereals that are pre-mixed with formula, fruit, or honey<br>1 to 4 tablespoons, twice a day | Infant cereals, Cream of Wheat, or other plain, hot cereals<br>Toast, bagel, or crackers good for teething | Hot or cold, unsweetened cereals<br>Bread<br>Rice<br>Noodles or spaghetti |
| **Fruit juices**  | none | Infant juice<br>Adult apple juice, Vitamin C-fortified<br>Avoid orange and tomato juice now<br>2 to 4 oz per day | Infant juice<br>Adult apple juice, Vitamin C-fortified<br>Offer diluted juice from a cup<br>4 oz. per day | All 100% juices<br>Orange and tomato juice can be offered now | All 100% juices from a cup |
| **Vegetables**  | none | none | Strained or mashed vegetables: dark yellow or orange (avoid corn); dark green<br>1/2 to 1 jar or 1/2 cup per day | Cooked chopped or mashed, fresh or frozen vegetables | Cooked vegetable pieces<br>May have some raw vegetables if child can chew them well |
| **Fruits**  | none | none | Fresh or cooked fruits: mashed bananas, applesauce, strained fruits<br>1 jar or 1/2 cup per day | Peeled, soft fruit wedges: bananas, peaches, pears, oranges, apples | All fresh fruits, peeled and seeded<br>Canned fruit, packed in water or its own juice |
| **Protein foods** | none | none | Try *plain* yogurt<br>Can be mixed with soft, fresh fruit or applesauce | Lean meat, chicken, and fish (strained, chopped, or small, tender pieces)<br>Egg yolk<br>Yogurt<br>Mild cheese<br>Cooked, dried beans | Small, tender pieces of meat, fish, or chicken<br>Whole egg<br>Cheese<br>Yogurt<br>Cooked, dried beans |

## Figure 12-2 cont. Some things to remember . . .

**Every baby is different. Consult your doctor or nutritionist to make sure your baby is getting what she or he needs.**

A baby's bottle is for **water, formula,** and diluted *100% juice only.*

Poor eating habits may result from putting food in the bottle.

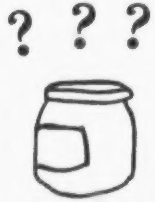
**Avoid soda (tonic)** and **fruit drinks:** Kool-Aid, Hi-C, Hawaiian Punch, Zarex, and Tang. They are full of sugar and food coloring.

Do not feel pressured to start solid foods before 4 months. The baby's digestive system is not yet fully developed to digest solid foods.

**Nursing bottle syndrome**
Don't put your baby to bed with a bottle because

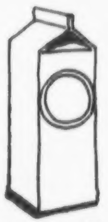
- it can cause ear infections
- it can hurt their teeth by causing tooth decay (cavities)
- it is a hard habit to break

Use a baby-sized spoon to feed your baby small amounts at first. Make the food thin and smooth by mixing it with a little formula or breast milk.



Add one new food at a time. Wait about 5 days before you try another one.

- This will give your baby time to get used to the new food.
- If your baby has an allergic reaction, you will know which food caused it.



When you start to offer milk, **use whole milk.**

Skim or lowfat milk should not be given to any child younger than 2-years-old because

- it does not have enough fat for the brain and nerves to grow
- it may not have enough calories for growth

You do not need to use baby foods. Fresh cooked foods cost less and can be better for your baby.

- Sugar, butter, and salt should not be added to your baby's food.
- Ask your doctor about what type of food to use for your baby.

$

If you use baby foods, buy **plain** meats, vegetables, and fruits—you'll get more for your money.

- Combination dinners contain added water and starch fillers.
- You can mix meats and vegetables together if your baby prefers them that way.

**The best foods**

- plain fruit
- plain meats
- plain vegetables
- eggs
- 100% fruit juices
- unsalted crackers
- rice
- noodles, spaghetti
- whole-wheat bread
- hot or cold, unsweetened cereals
- plain yogurt
- cottage cheese
- water

**Foods to avoid**

- mixed dinners
- bacon, luncheon meats, hot dogs, ham
- creamed vegetables
- fruit desserts
- puddings
- cookies, candy, cakes
- sweetened drinks

These foods are high in fat and sugar and contain few nutrients for your money.

Adapted from Massachusetts WIC Program, Nutrition Education Task Force, WIC Form #51.

Robert J. Bennett

*Add finger foods at 8 to 10 months to encourage self-feeding.*

- Start feeding solids with a small spoon. Let the baby suck the food off the tip of the spoon. Never put solids in a bottle—the baby may consume too many calories and fail to learn to handle solid foods differently from sucked liquids.
- Add **finger foods** (such as meat and cheese tidbits, cooked or soft vegetable strips and fruit sections) at 8 to 10 months to encourage self-feeding. All foods should be easy for the baby to gum.
- Introduce **table foods** at about 9 months, to supplement the protein provided by breast milk or formula. As table foods are introduced to the infant, it is important that an adult sit with the child.
  —Use cooked, lean hamburger, chicken, or fish that has been strained, chopped, or cut into small pieces to make chewing easier.
  —Serve cooked, mashed dried beans or peas for additional protein. Avoid spoonfuls of peanut butter (spread it on bread or crackers and serve with moist food and beverages) and any nuts, carrots, hot dogs, grapes, raisins, popcorn, corn, and large chunks of any food due to the potential for choking.
  —Add wheat products only after 7 months, since wheat is a common cause of allergies.
  —Serve no more than two to three eggs per week (soft-cooked or scrambled) after children are at least 10 months old. Before then, feeding eggs may promote development of egg allergies.
  —Offer a variety of **100% fruit juices** (dilute by mixing 1 part juice with 1 part water). Avoid juice drinks which are mostly water and sugar. Offer fluids from a cup at meals after 6 months.
  —Offer plain water, especially during hot weather. Children need to learn to drink unflavored beverages.

### Beginning cow's milk

Provide breast milk or formula, which are particularly nutritious and more digestible, to infants until they reach at least 6 months of age. Cow's milk can be introduced between 6 and 12 months, but many pediatricians prefer to have infants stay on formula until 12 months of age. Keep the following in mind:

- Do not serve lowfat or skim milk until 18 to 24 months, since these milk products have too few calories and too much protein for infants. Infants who are fed lowfat or skim milk may not consume enough calories. Whole milk contains the fat, cholesterol, and vitamin E babies need for brain and nerve development.

### Avoiding nursing bottle mouth

Do not allow infants or toddlers to go to bed with a bottle or to drink from a bottle lying down. Formula, milk, juice, and sweetened drinks contain sugars that can decay existing or erupting teeth, creating a condition known as nursing bottle mouth. This may lead to early loss of teeth, particularly the front upper and lower teeth. As a result, the child may not be able to chew food properly and crowding may occur in the adult teeth. If an infant wishes to take a bottle to bed, fill it with plain water. Better yet, try to have the child drink the bottle before lying down. Children who drink their bottles lying down are prone to ear infections.

## Feeding toddlers

A toddler's growth rate slows down during the period from 18 months to 3 years. As a result, a toddler eats less. Toddlers are demanding and energetic by nature. As they explore and gain control over themselves and their environment, they feel successful and become more independent. They begin to take more responsibility for what and how much they eat. For example, toddlers may go on food jags where they eat only a few foods.

You and the children's parents are responsible for **what** children are offered to eat, as well as **where, when,** and **how** food is offered. The toddler is responsible for **how much** food she or he eats. Your role is to help the child establish positive attitudes about eating, and to ensure a nutritionally adequate diet. You can help toddlers become independent by encouraging them to select from a variety of acceptable foods. Observe how energetic toddlers are, and how they grow, play, and eat. Be reassured that most toddlers are well nourished if a variety of nutritious foods are available.

### How much is enough?

When too much food is put on a child's plate, the child feels overwhelmed and may not even try to eat. A good rule to follow is to offer a child-sized portion consisting of ¼ to ⅓ of a usual adult portion, or 1 tbs. per year of age, whichever seems more appropriate. Give less than you think toddlers will eat and let them ask for seconds. Use the *Preschool Feeding Guide* (Figure 12-3) to estimate appropriate portion sizes for toddlers. These are minimum amounts for a nutritionally adequate diet and are not intended to limit the amount toddlers are allowed to eat.

There will be daily variation in both types of foods and calories consumed by toddlers. Children 1 to 3 years of age consume approximately 1000 to 1300 calories per day (some days less, some days more). **On a weekly average, a toddler should be eating a nutritionally balanced diet.**

### The eating environment

A pleasant, relaxed eating environment helps toddlers develop positive attitudes about food. Establish regular meal and snack times. Make sure toddlers sit at a comfortable height in relation to the table surface with their feet touching the floor. Use plates and utensils appropriate to children's sizes and skills. Offer silverware, but don't insist toddlers use it. If you allow toddlers to touch, smell, and explore food, they are more likely to eat it. Helping toddlers develop positive attitudes about eating is much more important than achieving fine-tuned table manners.

Encourage toddlers to try new foods, and occasionally praise them for eating well. Don't praise children for eating large quantities because this interferes with their self-regulation. Serve small portions, and encourage toddlers to try one bite. Prior to a meal, try to help toddlers relax and settle down. If children are tired or overstimulated from play, they may not feel like eating.

## Basic nutrition facts

### Food groups and major nutrients

Foods can be divided into groups according to the major nutrients they contain. See Figures 12-2 and 12-3 for details about the five major food groups and the daily minimum servings from each food group needed by preschoolers for proper growth and development.

### Snacks

Snacks are an important part of a well-balanced diet. For preschoolers, snacks are especially important since their stomachs are small and they usually can't eat enough in three meals to meet energy needs or satisfy appetites. Within 3 hours after a meal, young children will usually be hungry. Foods eaten at snack time can often provide nutrients missing from the rest of the day's food. The challenge is to help preschoolers eat nutritious snacks and to do so at appropriate times during the day. Good snacks are those that help provide children with essential nutrients they may be missing the rest of the day.

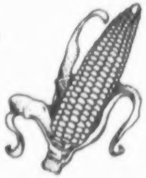
Serve snacks that are nutritious and contain some protein, some fat, and some carbohydrate to be satisfying and tasty. A list of nutritious snack ideas is provided in Figure 12-4. Snack times often offer good opportunities for children to try new foods. Avoid such commercial snack foods as chips, sweet cakes, candies, and fruit drinks. These all have limited nutritional value for the calories they contain.

### Appetite

Preschool children are not growing as fast as they did in infancy so their appetites decrease. A small appetite may also result if a child is tired, excited, ill, or in strange surroundings. Because no one food contains all the nutrients our bodies need, serve a variety of foods such as fruits, vegetables, protein foods, and unsweetened cereals. Preschoolers generally enjoy eating the same foods as adults.

Preschoolers often have unstable eating habits. Childen may be less hungry because they are in a slow growth stage or practicing newly discovered independence. Be aware of any change in a child's appetite that lasts longer than a few days and talk to parents or caregivers to try to find the reason.

## Figure 12-3. Toddler and preschool feeding guide

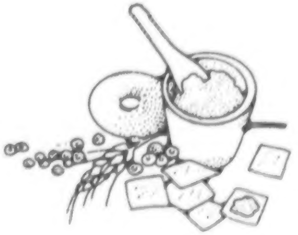
| Food group | Major nutrients | Food sources | Minimum number of servings per day | Serving sizes for children | |
|---|---|---|---|---|---|
| | | | | 1 to 3 years | 3 to 5 years |
| **Milk and milk products** | Calcium<br>Protein | Whole, lowfat, skim, or evaporated milk mixed with water, plain yogurt, cheese | 3 (20 to 24 oz.) | 3/4 to 1 cup milk<br>3/4 or 6 oz. of milk = 1 oz. of cheese = 3/4 cup plain yogurt<br>Note: Lowfat and skim milk should not be given before 2 years of age. | |
| **Meat or meat alternative** | Protein<br>Iron | Lean meat, fish, poultry, liver, eggs<br>Dried peas or beans, peanut butter, tofu<br>Nuts only for children age 4 years and older | 2 | 1 oz. meat, fish, or poultry<br>or<br>1/2 cup peas, beans, or tofu<br>or<br>2 tbs. peanut butter | 1 1/2 oz. meat, fish, or poultry<br>or<br>3/4 cup peas, beans, or tofu<br>or<br>3 tbs. peanut butter<br>1 egg = 1 serving |
| **Vegetables* and fruits***  | Vitamin A | Carrots, sweet potatoes, greens, winter squash, broccoli, mango, cantaloupe (minimum 1 serving per day) | 4 | 2 to 4 tbs. (1/8 to 1/4 cup) | |
| | Vitamin C | Oranges, grapefruit, orange juice, grapefruit juice, tangerines, papaya, strawberries, green pepper, broccoli, Brussels sprouts (minimum 1 serving per day) | | 1/2 cup or 1 small piece | |
| | Other vitamins and minerals | Potatoes, corn, green beans, peas, lettuce, cabbage, cucumbers, tomatoes, apples, bananas, grapes, plums, peaches | | 1/4 cup or 1/2 small piece | |
| **Breads* and cereals*** | Carbohydrate<br>B Vitamins<br>Iron (if enriched or fortified) | Whole-wheat or enriched white bread; macaroni or spaghetti; rice; cold or hot, unsweetened cereals | 4 | 1/2 slice of bread<br>1/4 cup rice, macaroni, or dry cereal<br>1 to 2 tbs. hot cereal | 1 slice of bread<br>1/2 cup rice, macaroni, or dry cereal<br>3 to 5 tbs. hot cereal |
| **Fats, oils, and sugar** | Fat<br>Sugar | Margarine, butter, vegetable oils, lard, mayonnaise, salad dressing, bacon, sausage, salt pork, candy, cookies, chips, Kool-Aid, soda (tonic), fruit punch | To be used in limited amounts. These foods are high in calories, sugar, fat, and/or salt. | | |
| **Water** | Water | Most foods, water as a beverage | 4 (amounts from 2 to 4 oz.) | 4 (amounts from 2 to 4 oz.) | |

*Note: Most fruits, vegetables, and whole grain foods are high in fiber.

## Figure 12-3 cont. Some things to remember . . .

**Build good eating habits**

- Make sure your child is sitting in a comfortable eating place.
- It is easier for a child to use a plastic cup filled only half way.
- A small bowl will help the child to get the food onto a spoon.
- Try one new food at a time. Offer it at the beginning of a meal when the child is most hungry.
- Offer foods children can eat with fingers, such as pieces of vegetables, fruits, meat, cheese, crackers, or cereal.
- Learning to eat takes practice. Be prepared for spills.



**Vegetables**

Vegetables are important and can be fun to eat. To encourage children to eat them

- try them raw. Cut and clean them—children can help. Eat them plain or dip them in yogurt, cottage cheese, or peanut butter.
- Try them cooked. Put them in a stew, soup, spaghetti sauce, or meatloaf.

**Juices**

Large amounts of sugar can decay teeth. Drinks such as Kool-Aid, Hawaiian Punch, Hi-C, soft drinks, Zarex, and fruit drinks are mainly sugar and water. Some contain vitamin C but they should not replace 100% fruit juices that have many other vitamins and minerals.

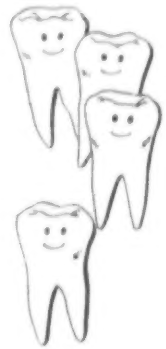
**When shopping, look for "100% fruit juice—no sugar added" on the label.**

**Remember**

- Every child is different! Talk to your doctor or nutritionist to make sure your child is getting what she or he needs.
- Children need the same good, nutritious foods as adults, only they don't need as much.
- Good eating begins at home. Remember what you buy is what you eat.

**Keep teeth healthy**

- Teach children to brush their teeth after meals and snacks. When brushing is not possible, have children rinse their mouths with water.
- Avoid sticky food such as candy and raisins, especially between meals.
- Take children to the dentist between the ages of 3 and 4 years. If a child has tooth decay, GO IMMEDIATELY.
- Take children to the dentist every 6 months for cleaning, a check-up, and if needed, a fluoride treatment.



Adapted from Massachusetts WIC Program, Nutrition Education Task Force, WIC Form #47.

## Figure 12-4. Ideas for nutritious snacks

### Fruits and vegetables

- **Keep them fresh**—Apples, oranges, grapes, cherries, strawberries, blueberries, bananas, grapes, cantaloupe, watermelons, grapefruit, etc.
- **Apple sandwich**—Slice an apple, spread peanut butter onto slices, and make a sandwich. Or, add a slice of cheese between the slices.
- **Yogurt sundae**—Children can make their own . . . just supply bowls, plain yogurt, cut up fruit, and toppings of chopped nuts, sunflower seeds, wheat germ, or dry cereal.
- **Fruit kabobs**—Skewer cut up fresh fruit and lowfat cheese cubes, pitted dates, or prunes on long straws or long toothpicks (for older children). Serve kabobs with a dip made with plain, lowfat yogurt sprinkled with cinnamon or a few drops of vanilla flavoring, or well-stirred, mixed fruit yogurt.
- **Fruit juice surprises**—Divide 1 cup of cut up fruit pieces (apple, banana, orange, strawberries) into four glasses. Add 3 cups of unsweetened fruit juice and chill.
- **Veggie kabobs**—Skewer (see note above) cut up pieces of fresh vegetables such as cherry tomatoes, zucchini, carrots, cucumbers, green peppers, mushrooms, and lowfat cheese cubes. Serve with salad dressing or a dip made with mashed beans, yogurt, or cottage cheese and seasoned with herbs.
- **Toss a salad**—or invite children to a homemade salad bar. Set out dishes of cut up veggies for children to create their own salads.
- **Celery stuff-its**—Fill celery with part-skim ricotta cheese mixed with unsweetened crushed pineapple. Or, fill celery with peanut butter and add a few raisins (this is called "Ants on a Log").
- **Lettuce stroll**—Spread tuna or chicken salad, peanut butter, or lowfat ricotta cheese on a lettuce leaf, roll it up, and eat.

### Freezer delights

- **Frozen dixies**—Freeze one of the following in a paper cup with a Popsicle stick: applesauce, crushed pineapple, fruited yogurt (mixed well or made with fruit juices).
- **Frozen strawberry yogurt pops**—Blend 1 cup of frozen strawberries until smooth. Mix the strawberries with 1 cup of plain, lowfat yogurt and 3 to 5 tbs. of honey. Pour into paper cups with a Popsicle stick in the center and freeze 1 to 2 hours until firm. Remove cup from frozen yogurt and serve. Makes seven pops.
- **My pop's better than yours**—Mix 2 cups of lowfat, plain yogurt; 1 cup of mashed banana; 1 tsp. of vanilla; and 1/2 cup of chopped walnuts (optional). Pour into six 4-oz. paper cups, insert Popsicle sticks in the center, and freeze until firm. Remove cup from frozen pop and serve.
- **Banana rockets**—Coat peeled, ripe bananas with orange juice or orange juice concentrate (to prevent discoloration), wrap in foil or plastic wrap, and freeze. Or, roll chilled, juice-coated bananas in chopped nuts or granola, press firmly to coat, and freeze until firm.

### Blender snacks

- **Blender basics**—For a shake, blend 1 cup of plain yogurt, 1 cup of chopped fruit (strawberries, bananas, etc.), and 1/2 cup of fruit juice (orange, pineapple, grape). The shakes will be thicker if made with frozen fruit.
- **Melon cooler**—In blender, mix 1 1/2 cups of ice cubes, 1 1/2 cups of cubed watermelon, honeydew, or cantaloupe, and 1/2 tsp. of lemon juice until smooth. Serve immediately. Makes 2 1/2 cups.
- **Ambrosia shake**—In blender, mix four sliced, ripe bananas, 1/2 cup of orange juice, 1/4 tsp. of vanilla, 4 cups of lowfat, or skim, or reconstituted nonfat, dry milk. Makes six servings.
- **Fruit soup**—In blender, combine 1/4 cup of orange juice, 1/2 of a small banana, 1/2 of an apple, 1 tsp. of lemon juice, 2 tbs. plain, lowfat yogurt, 1/4 cup strawberries, a dash of cinnamon, and a dash of dried mint. Chill before serving. Makes three 1/2 cup servings.

### Homemade convenience snacks

- **Train mix**—Combine dried fruits and dry cereal together, and divide into plastic bags or paper cups.

### Figure 12-4 cont. Ideas for nutritious snacks

- **Cheese popcorn—**Make popcorn and sprinkle with grated Parmesan cheese. Add melted butter or margarine if desired.
- **Going crackers—**Crackers and cheese, crackers and peanut butter (with or without jelly), crackers and dip . . . just be sure to choose your crackers carefully. Crackers that are lower in fat and sodium include Melba toast, matzo, rice cakes, Wasa, Rye Krisp, bread sticks, unsalted Saltines, Zwieback, and graham crackers.
- **Yummo wrap-ups—**Have children make their own using flour tortillas spread with peanut butter, dried fruits, and raisins—ideal for hikes. Or, use part-skim ricotta cheese and cinnamon or jam.
- **Nachos—**Cut corn tortillas into six triangles and top with grated mozzarella cheese. Place in oven (or toaster oven) at 350° to crisp the tortillas and melt cheese. Serve with salsa.
- **Natural soda pop—**Combine half a glass of fruit juice (orange, grape, apple, or pineapple) with half a glass of club soda or Seltzer. Add ice and enjoy.

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Gunnar Mengers

*Help children develop good food habits by offering a wide variety of foods. Encourage children to eat foods from different food groups.*

### Variety is essential

Adults can help children develop good food habits and eat the essential nutrients by offering a wide variety of foods (both different foods and the same food prepared in different ways, e.g., raw potato sticks, baked potatoes, potato salad). Gradually introduce a wide variety of foods to increase food acceptance. Pay attention to what foods children eat and encourage them to eat foods from different food groups.

### Food habits are learned

Food habits and the ability to eat wisely are **learned!** Children are great imitators and often mimic actions of people around them. New foods will be accepted more readily if you follow these guidelines.

- Introduce only one new food at a time.
- Serve the new food with familiar foods.
- Serve only small amounts of the new food.
- Introduce new foods only when children are hungry.
- Talk about the new food—taste, color, texture.
- Let children see you eating and enjoying the new food!
- Encourage children to taste the new food. If they reject it, accept the refusal and try again in a few weeks. As foods become more familiar, they are more readily accepted.
- Find out what is not liked about the rejected food. Often the food will be accepted if it is prepared in a different way.

### Food as reward or punishment

Sometimes you may be tempted to use food as a reward, pacifier, or punishment. How many times have you said, "No dessert until you clean your plate," thereby implying desserts are a better part of the meal? Children do need positive encouragement, but using food as a reward places undue emphasis on certain foods. Praise, a smile, or a hug serve just as well. Avoid using food for reasons other than to satisfy hunger. Make desserts nutritious so that if only the dessert is eaten, the child will have good food.

### Food safety

Follow these suggestions to avoid food-related problems:

- Do not serve nuts, popcorn, whole grapes, or chunks of hot dog to children under the age of 4. If a child chokes while eating, these foods can be easily breathed into the lungs. (Hot dogs may be served only if sliced lengthwise and then cut into bite-size pieces.)
- Do not feed honey to infants younger than 1 year of age. Honey can cause botulism in infancy. Check food and formula labels to be sure that honey has not been used as a sweetener.
- **Be sure that at least one staff member knows how to remove food caught in a child's throat using a modified Heimlich maneuver (see the first-aid section, page 97). It is common for children learning to eat finger foods to choke. Immediate attention is required if the child**

**turns blue or is not making voice sounds.**

- Be sure all staff are aware of any children's food allergies. Be especially alert for foods that may cause allergic reactions that are served at birthday parties or other occasions when parents may not be aware of the problem. Staff must also be aware of emergency steps to be taken should the allergic child consume the problem food.

### Activity and physical exercise

Activity has a lot to do with a child's appetite and nutritional status. Active children need more calories than inactive ones; this means that they have a better chance of getting all required nutrients. Adequate physical exercise year around, preferably on a daily basis, is important to a child's development because it

- stimulates healthy appetites
- uses calories and maintains muscle tissue
- improves coordination
- encourages children to express themselves and develop social skills

## Common nutritional concerns

**Fats.** There is growing concern about the role of fat in heart disease and controversy about the kind of fat and amount of cholesterol permissible in children's diets. Polyunsaturated and saturated fats are important nutrients to include in the proper ratio. **Polyunsaturated fats** are the liquid vegetable oils that contain essential fatty acids that the body cannot manufacture. **Saturated fats** are the solid fats found in beef, pork, lamb, chicken, and dairy products and are the ones to be limited. Some fat from both sources is necessary to maintain the proper balance of fatty acids in the body. Foods such as hot dogs, luncheon meats, and potato chips are high in saturated fat and salt and should be limited in a child's diet.

**Sugar.** You can easily avoid serving foods high in sugar to children. There is really no reason to sweeten food. Avoid honey, in any form, in the first year of life since it can cause botulism, a toxic condition for infants.

Honey, molasses, raw sugar, and refined sugar all contain the same number of calories. Never add sweetener to vegetables, fruits, fruit juice, or cereal. Avoid serving empty calorie foods such as candy; sweetened beverages; and refined, sweetened baked goods that provide mainly calories and low levels of essential nutrients.

**Salt.** High-salt diets may lead to the development of high blood pressure in people with a family background of hypertension (high blood pressure).

Salt intake can be reduced by not salting food at the table, decreasing the amount of salt used in cooking, and limiting salty foods (pickles, canned soups, chips, salty crackers, and salted nuts). Don't overlook the hidden sources of salt found in hot dogs, bacon, sausages, condiments, and canned and some frozen foods. Since preference for salty foods is learned, it can be changed.

**Vegetarian diets.** A well-planned vegetarian diet can provide all the nutrients a child needs for growth and activity. Vegetarian diets are often high in fiber and low in cholesterol and saturated fat, and they have many positive health benefits. However, because of this there is also the possibility that the child will not get enough calories. Vegetarian diets may include different food restrictions. Figure 12-5 describes vegetarian eating patterns.

Vegetarian diets that include dairy products and

Robert Koenig

*Early experiences with food have a strong impact on a child's future eating habits and health.*

**Figure 12-5. Types of vegetarian diets**

| | Foods consumed | | | | |
|---|---|---|---|---|---|
| **Diet** | **Beef and pork** | **Fish and poultry** | **Milk and milk products** | **Eggs** | **Vegetables, fruits, breads, cereals, and nuts** |
| **Nonvegetarian** | X | X | X | X | X |
| **Semi-vegetarian** | | X | X | X | X |
| **Lacto-ovo vegetarian** | | | X | X | X |
| **Ovo-vegetarian** | | | | X | X |
| **Lacto-vegetarian** | | | X | | X |
| **Vegan (total vegetarian)** | | | | | X |

Adapted from Ivens & Weil (1984).

eggs readily provide all the needed nutrients for young children. Vegan or total vegetarian diets that omit all animal protein can be nutritionally inadequate and may not provide enough protein, calcium, iron, zinc, vitamin D, and vitamin $B^{12}$. These very strict vegetarian diets may also be low in calories due to their high bulk and low fat content. In addition, problems of short stature, underweight, and rickets have occurred in children on very restrictive vegetarian diets.

Legumes, seeds, or nuts, when combined with grains, provide a good protein source. But to get enough protein, children on vegan or strict vegetarian diets need to eat a larger volume of food than children who eat meat, fish, poultry, and cheese. The number of servings from each food group will be different for a child eating a vegetarian diet, particularly a vegan diet. Parents who wish to have their children follow a vegan diet should be referred to a dietitian or nutritionist to ensure that intake of nutrients and calories is adequate for their child's growth.

**Milk.** If children drink too much milk, they may spoil their appetites for other foods and may develop iron deficiency anemia. Offer water if a child is thirsty.

If a child doesn't drink enough milk, try not to make an issue of it because this is probably just a phase. Left alone, the child will probably go back to drinking milk. A preschool child needs approximately 16 to 24 oz. (2 to 3 cups) of milk daily. Other foods rich in calcium, such as hard cheese and yogurt, can be substituted for milk (see Figure 12-6).

## Special nutritional concerns

- **Obesity**—Obesity is a common nutritional problem with many handicapping conditions. Prevention is especially important since obesity is difficult to reverse once it is present. Treatment for obesity should include a calorie-controlled diet and physical activity. A nutritionist can help you plan a reduced-calorie diet. By reinforcing appropriate eating behavior through nonfood rewards, you can help the child learn to control the types and quantities of foods consumed. Increased physical activity can help use calories, improve muscle tone, and relieve tension. Parents, health care providers, and the child all need to be involved. See the next column for further discussion of this topic.
- **Underweight**—Some children with handicapping conditions are underweight. Nutritionists can be helpful in determining the causes of underweight and in developing treatment plans. When conventional foods do not meet a child's nutritional needs, special dietary supplements may be used.
- **Behavioral problems**—Occasionally, children with handicapping conditions develop behavior problems associated with eating. Discuss any problems with parents immediately and involve appropriate health care providers to develop a workable treatment plan.
- **Inborn errors of metabolism**—A child with phenylketonuria (PKU) or any other inborn error of metabolism needs to be on a carefully controlled diet in order to promote normal growth and development and ensure intake of adequate nutrients. For the most part, food for the child's meals and snacks should be provided by the family. Other children should not share their food.
- **Other metabolic problems**—Conditions such as diabetes require only minor changes in the menu. Ask the child's parents or a nutritionist to give you a meal plan to be used as a guide.

## Special nutritional problems

Early childhood programs must follow orders of parents or the physician in preparing and feeding a child's special diet. A nutritionist should be consulted for assistance in menu planning.

### Obesity

Obesity is a complex problem with multiple causes including overeating, poor food choices, inactivity, social or emotional factors, and genetics. Obesity should be prevented. Many children who become obese will remain so throughout life. Obesity can significantly affect a child psychologically and emotionally, and can result in low self-esteem.

Many young children learn eating and activity patterns that can lead to obesity later in life. Using food as a reward or pacifier, force feeding, providing very large portions, and requiring clean plates may contribute to obesity. Physical activity is essential to maintain a normal weight. Surprisingly, it is often inactivity rather than calorie intake that causes obesity.

The goal of weight management for children is to

## Figure 12-6. Dietary sources of calcium

### Excellent

Yogurt, lowfat or whole milk, plain or fruit flavored
Skim milk
Lowfat milk (1 or 2%)
Buttermilk
Whole milk
Swiss cheese
Sardines, canned with bones

### Good

Cheeses: cheddar, Muenster, mozzarella, blue, American or Swiss pasteurized process cheese food
Parmesan cheese, grated
Tofu*
Dry skim milk, instant
Mackerel, canned, solids and liquids
Salmon, pink, canned with bones
Collard greens, cooked

### Fair

Blackstrap molasses
Vanilla, soft-serve, frozen dairy products
Figs, dried
Kale, cooked
Mustard greens, cooked
Ice cream, vanilla
Corn muffins
Chickpeas, cooked
Broccoli, cooked
Cottage cheese, creamed

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*Calcium content of tofu differs according to the processing method. Tofu contains calcium if it is processed with a calcium coagulant such as sulfate. Look on the nutrition label or in the ingredient list. Nigari is a popular tofu coagulant that does not contain calcium.

**limit further weight gain.** Children will grow slimmer as they grow into their weight. Actual **weight loss is not generally recommended** as children need adequate nutrients and calories for growth. Lowfat, nutritious meals and snacks are essential to good weight management.

**How to manage/prevent obesity in young children**

- Encourage children to be physically active.
- Limit high calorie foods (foods high in fat, sugar, or both).
- Limit excessive drinking of sweetened beverages such as fruit drinks, powdered or syrup-based drink mixes, and chocolate milk, that can add many extra calories each day. A child's thirst can be satisfied with water after the proper amount of milk has been consumed.
- Use lowfat or skim milk with children older than 2 years old.
- Help children learn to deal with emotions or stress without turning to food.
- Remember that **your** food habits and attitudes will influence those of the children around you.

### Anemia

Iron is needed to form hemoglobin, the substance in blood that carries oxygen from the lungs to the body cells. Without enough iron, our blood cannot carry the oxygen our bodies need. Lack of iron results in anemia. An anemic child is likely to appear tired, pale, and inattentive, and to be susceptible to infection.

Iron deficiency anemia is a common problem for young children, particularly for children from low-income families. Causes of iron deficiency anemia include

- overconsumption of milk (more than 24 to 32 oz. per day) resulting in low intake of other foods, particularly iron-containing foods
- too few foods containing iron in the diet
- lack of high-iron, high-nutrient foods served for snacks
- lead toxicity. Iron deficiency and lead poisoning frequently occur together. Iron and lead compete with each other for the same binding sites in the body. Iron deficiency may increase the absorption of lead from the intestine and make the toxic effects of lead worse. Therapeutic doses of iron are often required to correct the iron deficiency when accompanied by lead poisoning.

**How to manage anemia**

- Encourage the child to consume a varied, well-balanced diet that includes iron-rich foods.
- Provide increased amounts of iron-rich foods at meals and snacks. Good sources of iron include liver, dried beans and peas, lentils, beef, pork, lamb, whole wheat and enriched breads, and cereal products. Raisins and peanut butter also contain a small amount of iron. Iron from animal sources is absorbed better than iron from plant sources.
- Serve iron-rich foods with a source of vitamin C. Vitamin C increases the body's ability to use iron. The amount of iron absorbed from plant sources can be increased significantly when these foods are combined with a food high in vitamin C. For example, serve spinach, broccoli, or tomato slices with chili; serve half an orange, cantaloupe cubes, or strawberries with split pea soup. These fruits and vegetables provide fiber and vitamin C as well as make the iron in the bean dishes more available for use by the body.
- Limit milk to 24 oz. per day and assure adequate intake of other foods, particularly iron-containing foods.

### Failure-to-Thrive

Some children do not grow properly. They are small or thin for their age; their height may be short for their age, or their weight may be low for their height. They may tire easily, be inattentive, disinterested in eating, and be undernourished. This complex syndrome, known as Failure-to-Thrive (FTT), may be due to medical, nutritional, or psychosocial factors.

**How to manage FTT syndrome**

- Refer the child immediately for a complete medical, nutritional, and social evaluation.
- Consult a nutritionist who can plan a nutritionally appropriate diet and support the family, child, and early childhood program during the critical period of weight gain.
- Be available to assist the family with carrying out the recommended treatment plan.
- Watch children who fail to thrive closely, even when the crisis is past.

### Food allergies and intolerances

Infants and young children sometimes have food allergies or are intolerant of certain foods. An allergic reaction occurs when a child becomes sensitive to a particular food and the immune system produces increased amounts of antibodies. The allergic reaction can be avoided only by avoiding the food.

Foods that commonly cause allergic reactions are nuts, peanuts, eggs, cow's milk protein, wheat, fish, shellfish, and citrus fruits.

A food intolerance means that the child has some metabolic factors (e.g., does not manufacture an enzyme or chemical needed to digest a certain food substance) that make it difficult or impossible to digest or use that food. Sometimes, foods can be modified so that the child can tolerate them. Intolerance to the sugar in cow's milk (lactose) is a common problem in infants and children. Soy formulas are frequently used alternatives to cow's milk or regular formula for children with either milk allergies or lactose intolerance.

When the allergic child eats a food to which she or he is sensitive, symptoms such as diarrhea, vomiting, abdominal pain, rash, irritability, breathing problems, and even death may occur. The relationship between allergies and hyperactivity is controversial. Reactions to food allergies may be immediate or delayed; symptoms may be mild to severe, depending on the type and amount of food eaten and the age of the child.

**How to manage allergies**

- Consult a nutritionist concerning diet planning for the allergic child.
- Eliminate or decrease the problem food(s) from the diet depending on the severity of the reaction.
- Read labels to identify hidden sources of the problem foods or substances.
- Work with parents to find acceptable substitutes for problem foods.
- Plan menus carefully to ensure adequate nutrition, particularly if a child has multiple food allergies, or if the child is allergic to major food groups.
- Make sure the child gets critical nutrients from other sources: calcium and vitamin D if child is allergic to milk; vitamin C if child is allergic to citrus fruits.

### Milk allergies

Some children are allergic to the milk protein and are unable to tolerate any milk products including dry milk solids added to margarine, for example. This allergy is often outgrown between the ages of 2 to 5 years.

Other children are unable to digest the sugar in milk, called lactose, due to a low level of the enzyme lactase in the intestine. Children with lactose intolerance may suffer from abdominal pain, bloating, and diarrhea. Lactose intolerance is very common in Africans, Black Americans, Orientals, Jews, Arabs, and Indians (North and South American).

**How to manage lactose intolerance.** Tolerance of lactose varies. Many children can tolerate small amounts of lactose (e.g., 8 oz. of milk) if intake of these foods is spaced throughout the day. Encourage children to try cheese and other fermented dairy products, such as yogurt, that have a lower lactose content and are better tolerated. Lactose-free, soy-based formulas are available as substitutes for regular infant formula or cow's milk.

Encourage parents to try hydrolyzed milk (milk in which the lactose has been made more digestible by the enzyme lactase). You can buy hydrolyzed milk in many stores. Lact-aid, the commercial name for the lactase enzyme, is also available separately to be added to regular milk for the same effect. See Figure 12-6 for alternative calcium sources.

The diet of a child with a milk allergy or intolerance should be evaluated regularly. Because calcium requirements are met primarily through eating dairy products, these children may not get adequate calcium unless other adjustments are made in their diet.

### Hyperactivity

Additive-free diets for the treatment of hyperactivity have not been found to be of value. Diets that eliminate artificial food colorings and salicylates (aspirin-like compounds) are not harmful to children and may improve the nutritional value of the child's diet. However, they have not been shown to affect the hyperactivity itself. Any such diet, therefore, should be carefully planned along with appropriate medical and psychological treatment. A nutritionist should be consulted to ensure nutritional adequacy.

## Nutrition education

Childhood is the best time to develop good food habits, because early experiences with food have a strong impact on a child's future eating habits and health. Poor diet has been associated with the development of many of the major chronic diseases in this country: heart disease, stroke, high blood pressure, some forms of cancer, diabetes, and tooth decay. Nutrition education can significantly enrich the

Robert Koenig

*Nutrition education teaches young children how to be selective about food so they can establish proper dietary habits.*

lives of children and provide a means for learning about their life and culture. Children who understand themselves and their environment develop a positive self-image, an essential ingredient for effective learning of any kind. Nutrition education teaches young children how to be selective about food and combats misinformation from television advertising.

**Dietary habits are established early in life. The habits children learn during their preschool years will significantly affect their future health.**

## Feeding children who have special needs

Children with special needs have the same needs as all children for care and feeding. Often these basic needs are overlooked in the concern for the child's disability or handicapping condition. **Nutritional problems** (such as poor food intake, inability to chew or swallow normally, inadequate weight gain, short stature, obesity, or iron deficiency anemia) and **behavioral problems** associated with eating frequently **constitute a handicapping condition that causes a child to be at nutritional risk.** Infants or children with handicapping conditions may have feeding needs that require more patience, time, and understanding than usual. Special adaptive equipment may be necessary also.

Whatever the disease or disorder, the child's growth and development to her or his full potential must be promoted. Good nutrition always contributes to optimal growth and development and can decrease or prevent the debilitating effects of many handicapping conditions.

Use the services of a nutritionist or dietitian to ensure that families and staff have the knowledge, skills, and support to provide optimal nutritional care to the child with a handicapping condition. If necessary, involve occupational and physical therapists, social workers, or other health providers to help solve any complex problems.

Concentrate on creating a pleasant eating environment where all children can learn to eat in a manner appropriate to their developmental levels. It is essential to involve parents in meeting the special nutritional needs of the child with a handicapping condition, since the major part of the child's food needs must be met at home.

## Dietary guidelines for all ages

The U.S. Department of Agriculture and the Department of Health and Human Services have published dietary guidelines intended to promote the health of all Americans. They form the basis of any nutrition education activities you conduct for children, staff, or parents. These guidelines are

- Eat a variety of foods.
- Maintain desirable weight.
- Avoid too much fat, saturated fat, and cholesterol.
  —Choose lean meat, fish, poultry, and dried beans and peas as protein sources.
  —Use skim or lowfat milk and milk products (preschool children and adults only).
  —Limit your intake of fat and oils, especially those high in saturated fat such as butter, cream, lard, hydrogenated fats (some margarines), shortenings, and foods containing palm or coconut oil.
  —Trim fat off meats.
  —Broil, bake, or boil, rather than fry.
  —Moderate your use of foods that contain fat, such as breaded and fried foods.
  —Read labels carefully to determine both the amount and type of fat present in foods. For example, choose margarines with liquid vegetable oils as the first ingredient.
- Eat foods with adequate starch and fiber.
  —Choose foods that are good sources of fiber and starch, such as whole grain breads and cereals, fruits and vegetables, and dried beans and peas.
  —Use starchy foods rather than foods that have large amounts of fats and sugars.
- Avoid too much sugar.
  —Use less of all sugars and foods containing large amounts of sugars, including white sugar, brown sugar, raw sugar, honey, and syrups.
  —Read labels for clues of sugar content. If the word *sugar, sucrose, glucose, maltose, dextrose, lactose, fructose,* or *syrup* appears first, then there is a large amount of sugar.
  —Select fresh fruit or fruit packed in water, its own juice, or with light rather than heavy syrup.
  —For good dental health, limit how often you eat sugar and sugar-containing foods. Avoid eating sweets between meals.
- Avoid too much sodium (salt).
  —Cook without salt or with only small amounts of added salt.
  —Try flavoring foods with herbs, spices, and lemon juice.
  —Add little or no salt to food at the table.
  —Limit use of salty foods such as potato chips, pretzels, salted nuts and popcorn, condiments (soy sauce, steak sauce, garlic salt), pickled foods, cured meats, some cheeses, and some canned vegetables and soups.
  —Read food labels carefully to determine the amounts of sodium (salt).
  —Use lower sodium products, when available, to replace those you use that have a higher sodium content.
- If you drink alcoholic beverages, do so in moderation.

In addition to these guidelines, meet the special nutritional needs of infants and toddlers.
—Encourage breast-feeding unless there are special problems.
—Delay introduction of solids until babies are 4 to 6 months old.
—Do not add salt, fats, or sugar to children's food.

## Weaning

Weaning is a process of replacing the bottle or breast with a cup.

- A cup can be introduced around 8 to 9 months of age. A cup without a spout top is recommended because this spout continues to promote sucking fluids.
- A toddler can be completely weaned from the bottle or breast sometime during the first half of the second year (12 to 18 months of age).
- Weaning can be accomplished by gradually offering more fluids in a cup at mealtimes and between meals.
- Nap and bedtime bottles and nursings should gradually be replaced by reading stories, rocking, lullabies, and other soothing and relaxing actions.

## Nutrition education with children

Teaching children to eat wisely and moderately is an investment in the future. The foods children eat influence their growth, development, capacity to learn, and overall behavior. All children deserve an equal opportunity to learn about foods, to explore different foods, and to learn why eating a varied, nutritionally adequate diet is necessary to reach one's growth potential. Social, economic, cultural, and psychological factors play an important role in determining what and how much we eat. Successful nutrition education helps children develop flexible, enjoyable, healthy eating habits.

Figure 12-7 identifies ideas for nutrition education activities that will foster the development of positive eating practices and enhance a child's emotional and psychological growth. These learning experiences can be easily integrated into daily routines. For example, eating together at meal and snack time or during special occasions is an opportunity for children to socialize. Visits to local farms and farmers' markets will put children in touch with

## Figure 12-7. Ideas for nutrition education

| Developmental areas | Knowledge/skills used | Activity |
|---|---|---|
| Good self-image | Develop skills to choose widely | Have childen plan, prepare, and serve simple nutritional snacks. For example, have children prepare "Ants on a Log"—celery stuffed with peanut butter and topped with rasins. |
| Appreciation of health | Gain knowledge of how food promotes growth and development | Ask children to discuss what foods help their teeth grow and stay healthy. |
| Enjoyment of food through all the senses | Experience various foods through sight, sound, smell, feel, and taste | Have children try to identify a banana using one sense (sound, smell, feel, touch) at a time and check their answers through sight. |
| Appreciation of ethnic background | Share cultural background | Choose the cultural heritage of one or more children as a theme for a day's meals and snacks. Discuss at mealtimes how factors such as climate help shape food habits. |
| Self-expression | Foster creativity | Have children try various whole grain breads by first baking the bread and then tasting it. Encourage children to shape the dough in different ways. |

See Wanamaker, Hearn, & Richarz (1979) for many more ideas.

local surroundings and create an awareness of how food is grown and sold in places other than a supermarket.

The cultural and ethnic customs of our society influence the food we eat. Cultural heritage often determines whether a particular food will be eaten, regardless of its nutritional value. A wide variety of cultures and food habits can make eating interesting and fun.

### Involve parents

Your program can't be the **only** advocate of good nutrition; parent involvement is essential. The combination of foods eaten both places should provide all the necessary nutrients for a child. Parents and teachers need to educate themselves about the types and amounts of food necessary for good nutrition. Suggestions to involve parents:

- Ask parents to assist in planning menus. If parents are interested, provide an educational meeting on the principles of good nutrition involved in menu planning for young children.
- Include articles in your newsletter about your nutrition education activities. Ask parents for ideas for future programs, and invite parents to participate in classroom activities. Ask parents to contribute articles to the newsletter about nutrition activities with their children at home.
- Send menus home with children to show parents what meals and snacks are planned. Offer parents new ideas for providing nutritious foods at home. Ask parents to share creative meal and snack ideas with each other. Have a contest for the best idea.
- Invite parents to visit and participate with their children at a pot luck dinner with a special ethnic food unique to their culture.
- Talk with parents about any eating or nutritional problems you notice. Make appropriate referrals and provide regular progress reports.
- Sponsor educational programs for parents on nutrition and consumer issues. Help parents understand how they can encourage positive eating habits at home. Use the dietary guidelines (p. 154 and p. 158) as a starting point.
- Remind parents about ways to involve their child with food in the home, such as
  —Allow your child to help prepare food.
  —Let the child share in clean-up activities.
  —Encourage your child to talk with you about food.
- Make available a list of community food and nutrition services including school feeding programs, Food Stamps, WIC (Supplemental Food Program for Women, Infants and Children), and emergency feeding agencies.

## Community nutrition resources

A resource list of community nutrition programs, local nutritionists with whom you can consult, and emergency food agencies will help you make appropriate referrals when necessary.

### Child Care Food Program (CCFP)

The Child Care Food Program (CCFP) is a federally sponsored program that helps provide nutritious meals to children enrolled in child care centers or family child care programs throughout the country. It also introduces young children to many different types of foods and helps teach them good eating habits. It is funded by the U.S. Department of Agriculture and (in most states) is administered by the U.S. Department of Education as an adjunct to the School Lunch Program.

**Who can participate?** The program is limited to public and private nonprofit organizations providing licensed or approved nonresidential child care services. Private, for-profit programs may qualify if they receive compensation under Title XX of the Social Security Act for at least 25% of the children who are receiving nonresidential care.

Child care and after-school programs can operate in the program either independently or through a sponsoring organization that accepts final administrative and financial responsibility for the program. Home-based child care programs must participate under a sponsoring organization; they cannot enter the CCFP directly.

Children 12 and younger are eligible to participate in the program. For children of migrant workers, the age limit is 15 years. Physically or mentally handicapped people are eligible regardless of age, if they receive care at a center or home where the majority of the enrollees are 18 or younger.

**Eligibility requirements.** All private institutions (except for-profit Title XX organizations) must have tax-exempt status under the Internal Revenue Code of 1954, or must have applied to the Internal Revenue Service (IRS) for it at the time they apply for the Child Care Food Program. If an institution takes part in other federal programs for which it needs nonprofit status, it already meets this requirement.

Home-based child care programs are not required to be tax exempt but their sponsoring organizations must have tax-exempt status if they are private. Local IRS offices can provide information on how to obtain tax-exempt status. **All institutions,** except sponsoring organizations, **must have child care licensing or approval.**

**Meal service.** All participating institutions must serve meals that meet U.S. Department of Agriculture nutritional standards. Institutions may receive payment for up to three meals per child per day; one of these meals must be a snack.

**Available assistance.** Generally, payments to programs are limited to the number of meals served to enrolled children multiplied by the appropriate rates for reimbursement. The rate of payment varies according to the family size and income of children participating in the program. Increased payment is provided for low-income children. Some state administering agencies may base payment on the maximum rates or actual costs, whichever is less.

Meals served by home-based child care providers under CCFP are paid for at different rates for each type of meal served that meets program requirements. The sponsoring organization must pass the full food service payment to the home, unless the sponsoring organization provides part of the home's food service. Providers receive payment for meals served to their own children only when (1) their children meet the family size and income standards for free and reduced-price meals, and are participating in the CCFP, and (2) other nonresident enrolled children are present and participating in the program. Separate administrative funds are provided to sponsoring organizations based on the number of homes they administer.

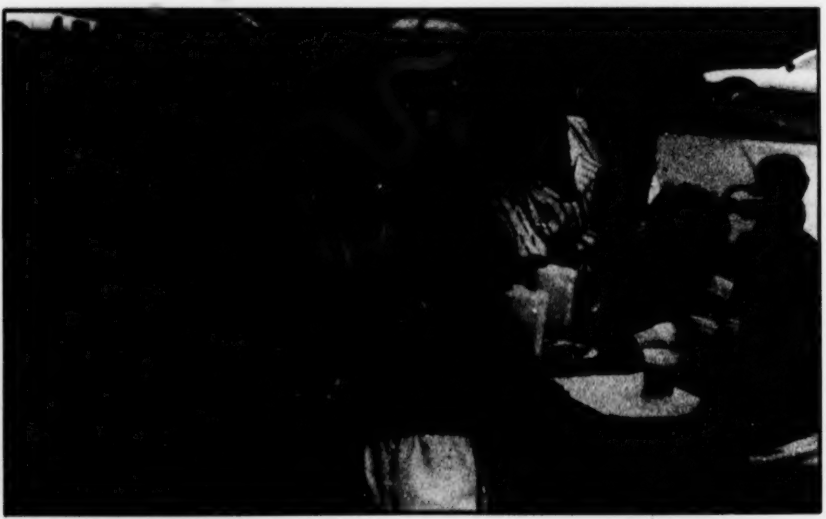
**Civil rights.** The CCFP is available to all eligible children regardless of race, color, national origin, sex, age, or handicap. If you believe you have been treated unfairly in receiving food services for any of these reasons, write immediately to the Secretary of Agriculture, Washington, DC 20250. More information may be obtained from the Office of Equal Opportunity, U.S. Department of Agriculture, Washington, DC 20250.

**Additional information.** To obtain information about CCFP in your area, write or call Director, Child Nutrition Division, Food and Nutrition Services, U.S. Department of Agriculture, 3101 Park Center Drive, Alexandria, VA 22302. 703-756-3590.

### Food Distribution Program

Through the Food Distribution Program, the USDA purchases surplus foods from U.S. markets and distributes them to state agencies for use by eligible local agencies. The foods go to schools and institutions participating in the child nutrition programs (school lunch, school breakfast, summer feeding, and after-school programs), to nutrition programs for the elderly, to low-income families on Indian reservations, and to hospitals and prisons.

Licensed child care programs are eligible to participate in the food distribution program. Programs already enrolled in the CCFP automatically receive an application for the Food Distribution Program. If their applications are approved, they can elect to receive commodities or cash.



Subjects & Predicates

*Operating a food service program for young children involves menu planning, food purchase and preparation, food service, and a number of issues related to environmental health, sanitation, and infectious disease control.*

### Food Stamp Program

The Food Stamp Program helps low-income households purchase the foods they need for good health. Participating families get coupons, free of charge, that they exchange for food at authorized stores. People can apply for Food Stamps at their local Food Stamp office.

### WIC

The Special Supplemental Food Program for Women, Infants and Children is commonly known as WIC. WIC is a federally funded food and nutrition education program for pregnant, postpartum, and breast-feeding women; infants; and children younger than age 5 who are low income and at nutritional risk. WIC is operated by local health clinics and other authorized community agencies.

Nutritionists counsel WIC participants concerning specific dietary needs, eating patterns, and use of WIC foods (milk, cheese, eggs, 100% fruit juice, iron-fortified cereals, peanut butter, dried peas and beans, infant formula, and infant cereal). WIC's goal is to promote changes in eating, food preparation, and shopping habits that will positively affect health.

WIC programs provide supplemental foods in one of three ways: they obtain foods from local firms and distribute them directly; they arrange for home delivery; or they give mothers vouchers to exchange for specified items at authorized grocery stores.

### Nutrition Education and Training Program (NETP)

Federal Nutrition Education and Training Program (NETP) funds are granted to states for the dissemination of nutrition information to children, and for in-service training of teachers and food service personnel. The program is for all children in public and private schools and in residential and nonresidential child care.

Child care programs can apply to the NETP for small grants to start nutrition education programs. Copies of previously funded nutrition projects are also available for loan.

### Expanded Food and Nutrition Education Program (EFNEP)

EFNEP serves low-income families with children. It is regarded by many as the nutrition education component of the Food Stamp Program. Nutrition aides under the direction of a registered dietitian or nutritionist visit homes to provide education on general and specific nutrition problems. The aides teach food budgeting, purchasing, and preparation.

## Running a food service

Operation of a food service program for young children involves menu planning, food purchase and preparation, food service, and a number of issues related to environmental health, sanitation, and infectious disease control. See Chapters 3, 4, and 17 for further information and guidelines.

### Menu planning

Plan your menus around the nutritional and developmental needs of young children using the meal pattern developed by the USDA Child Care Food Program (CCFP) as a minimum standard (see Figure 12-8). Figure 12-9 provides three sample weekly menus and shows how the pattern translates into meals and snacks. If you can not represent all the food groups at one meal, serve the missing one at snack time.

Prepare written menus weekly and post them for staff and parents. Provide nutritious snacks mid-morning or mid-afternoon for children who attend less than 4 hours. When children stay for 4 hours or longer, either the program or the parents must provide meals in addition to snacks. Use a menu-planning worksheet to ensure consistency in each day's menu (Figure 12-10).

Provide children with nutritious foods they like and can eat easily. Fibrous foods are difficult for young children to eat. Preschoolers usually do not like food that is very hot or very cold. Cut foods into bite-size pieces. Serve a variety of finger foods or foods that can be easily picked up. In cooking, try to preserve natural colors and textures so food looks appealing.

Consider setting up a menu planning committee to involve interested people in developing your menu. This committee might consist of a program director, a teacher or teacher's assistant, a cook, a parent(s), and a nutritionist. If you use cycle menus, you may only have to meet once a month or every 6 weeks.

Here are some other factors to consider as you plan menus:

- Inventory—Keep an inventory of the foods on hand to help you determine future menus and how much of a particular food you need to order during a menu cycle.

## Figure 12-8. Child Care Food Program: Meal pattern requirements

| **Breakfast** | **Children 1 and 2 years** | **Children 3 through 5 years** | **Children 6 through 12 years** |
|---|---|---|---|
| Milk, fluid | 1/2 cup | 3/4 cup | 1 cup |
| Juice or fruit or vegetable | 1/4 cup | 1/2 cup | 1/2 cup |
| Bread (enriched or whole grain) and/or | 1/2 slice | 1/2 slice | 1 slice |
| cereal: cold, dry or | 1/4 cup | 1/3 cup | 3/4 cup*** |
| hot, cooked | 1/4 cup | 1/4 cup | 1/2 cup |
| **Midmorning or midafternoon snack** (supplement) | | | |
| (select 2 of these 4 components) | | | |
| Milk, fluid | 1/2 cup | 1/2 cup | 1 cup |
| Meat or meat alternate | 1/2 oz. | 1/2 oz. | 1 oz. |
| Juice or fruit or vegetable 1/2 cup | 1/2 cup | 3/4 cup | |
| Bread, (enriched or whole grain) and/or | 1/2 slice | 1/2 slice | 1 slice |
| cereal: cold, dry or | 1/4 cup* | 1/3 cup** | 3/4 cup*** |
| hot, cooked | 1/4 cup | 1/4 cup | 1/2 cup |
| **Lunch or supper** | | | |
| Milk, fluid | 1/2 cup | 3/4 cup | 1 cup |
| Meat or meat alternate | 1 oz. | 1 1/2 oz. | 2 oz. |
| Meat, poultry, or fish, cooked (lean meat without bone) | | | |
| Cheese | 1 oz. | 1 1/2 oz. | 2 oz. |
| Egg | 1 | 1 | 1 |
| Cooked, dried beans or peas | 1/4 cup | 3/8 cup | 1/2 cup |
| Peanut butter | 2 tbs. | 3 tbs. | 4 tbs. |
| Vegetable and/or fruit (2 or more) | 1/4 cup | 1/2 cup | 3/4 cup |
| Bread or bread alternate, enriched or whole grain | 1/2 slice | 1/2 slice | 1 slice |

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*1/4 cup (volume) or 1/3 oz. (weight) whichever is less

**1/3 cup (volume) or 1/2 oz. (weight) whichever is less

***3/4 cup (volume) or 1 oz. (weight) whichever is less

## Figure 12-9. Sample weekly menus

| **Week one** | | | | | |
|---|---|---|---|---|---|
| **Pattern** | **1st day** | **2nd day** | **3rd day** | **4th day** | **5th day** |
| **Breakfast** | | | | | |
| **Juice or fruit or vegetable** | **Orange juice**—1/2 cup | **1/2 banana sliced** | **Apricot halves**—1/2 cup | **Fruit cup**—1/2 cup | **Grapefruit sections**—1/2 cup |
| **Cereal, bread, or bread alternate** | **Biscuit**—1 | **Cornflakes**—1/3 cup | **Blueberry muffin**—1/2 muffin | **Toast**—1/2 slice | **Rolled oats**—1/4 cup |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Other foods** | **Baked, scrambled egg**—2 tbs. | | | **Hard-cooked egg**—1/2 egg | |
| **Morning snack**<br>(Select two of these four components) | | | | | |
| **Milk** | **Milk**—1/2 cup | | **Milk**—1/2 cup | | |
| **Meat or meat alternate** | | **Cheese wedge**—1/2 oz. | | | **Peanut butter** |
| **Fruit, vegetable, or juice** | | **Fruit or vegetable juice**—1/2 cup | | **Orange juice**—1/2 cup | **Grape juice**—1/2 cup |
| **Bread or bread alternate** (including cereal) | **Toast**—1/2 slice sprinkled with cinnamon | | **Dry cereal**—1/3 cup | **Toasted raisin bread**—1/2 slice | **Enriched soda crackers**—2 |

**Figure 12-9 cont. Sample weekly menus**

| **Pattern** | **1st day** | **2nd day** | **3rd day** | **4th day** | **5th day** |
|---|---|---|---|---|---|
| **Lunch or supper** | | | | | |
| **Meat or meat alternate** | **Meat loaf**—1 slice (1 1/2 oz. meat) | **Baked chicken** (1 1/2 oz. meat) | **Chicken vegetable soup**—1/2 cup (1 oz. meat, 1/4 cup vegetable) | **Spaghetti and meat sauce**—1/2 cup (1 1/2 oz. meat) | **Fish sticks**—3 (1 1/2 oz. fish) |
| **Vegetables and fruits** (two or more) | **Green beans**—1/4 cup<br>**Pineapple cubes**—1/4 cup | **Mashed potatoes**—1/4 cup<br>**Peas**—1/4 cup<br>**Carrot stick** | **Green pepper stick**<br>**Sliced peaches**—1/4 cup | **Peas**—1/4 cup<br>**Green salad**—1/4 cup | **Green beans**—1/4 cup<br>**Fresh pear half**—1/4 cup |
| **Bread or bread alternate** | **Bread**—1/2 slice | **Roll**—small | **Peanut butter and jelly sandwich**—1/4 (1 tbs. peanut butter) | **French bread**—1/2 slice | **Corn bread**—1 square |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Afternoon snack** (Select two of these four components) | | | | | |
| **Milk** | | **Milk**—1/2 cup | | **Milk**—1/2 cup | |
| **Meat or meat alternate** | | | | | **Cottage cheese dip**—1/4 cup with zucchini sticks |
| **Fruit, vegetable, or juice** | **Mixed fruit juice**—1/2 cup<br>**Celery sticks with peanut butter**—1 tbs. | | **Apple juice**—1/2 cup | **Turnip stick** | |
| **Bread or bread alternate** (including cereal) | | **Oatmeal cookie**—1 | **Soft pretzel**—1 | **Peanut butter cookie** | **Melba toast**—3 |

Figure 12-9 cont. Sample weekly menus

| **Week two** | | | | | |
|---|---|---|---|---|---|
| **Pattern** | **1st day** | **2nd day** | **3rd day** | **4th day** | **5th day** |
| **Breakfast** | | | | | |
| **Juice, fruit, or vegetable** | **Small banana**—1/2 | **Apple juice (fortified with vitamin C)**—1/2 cup | **Orange juice**—1/2 cup | **Tangerine sections**—3 (remove seeds) | **Orange juice**—1/2 cup |
| **Cereal, bread, or bread alternate** | **Unsweetened iron-fortified cereal**—1/2 cup | **Toast**—1/2 slice with margarine—1 tsp., jelly | **Corn muffin**—1/2 to 1 muffin | **Raisin toast**—1/2 to 1 slice | **French toast with cinnamon**—1/2 to 1 slice |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Other foods** | | **Scrambled egg**—1 | **Margarine**—1 tsp. | **Cottage cheese**—1/4 cup<br>**Margarine**—1 tsp. | **Margarine**—1 tsp.<br>**Maple syrup**—1 tsp. |
| **Morning snack** (Select two of these four components) | | | | | |
| **Milk** | **Milk**—1/2 cup | **Milk**—1/2 cup | **Milk**—1/2 cup | **Milk**—1/2 cup | **Milk**—1/2 cup |
| **Meat or meat alternate** | **Peanut butter**—2 tsp. | | **Peanut butter**—2 tsp. | **Cheese slices**—2 | |
| **Fruit, vegetable, or juice** | | | | | **Small banana**—1/2 |
| **Bread or bread alternate** (including cereal) | **Graham crackers**—2 | **Unsweetened iron-fortified cereal**—1/3 to 1/2 cup | **Rye wafers**—2 or 3 | **Wheat crackers**—2 | **Cereal, iron-fortified**—1/3 to 1/2 cup |

## Figure 12-9 cont. Sample weekly menus

| Pattern | 1st day | 2nd day | 3rd day | 4th day | 5th day |
|---|---|---|---|---|---|
| **Lunch or supper** | | | | | |
| **Meat or meat alternate** | **Tuna sandwich (1/2 cup tuna with 1 tsp. mayonnaise, 1/2 to 1 slice bread)** | **Macaroni and cheese**—1/3 to 1/2 cup | **American chop suey**—1/2 cup | **Meatball sub**—1 1/2 oz. with cheese—1/8 cup | **Homemade turkey soup**—1/2 cup |
| **Vegetables and fruits** (two or more) | **2 fruit slices** (pear, apple, or orange) | **Tomato wedges**—2 to 3<br>**Raisins**—1 tbs. | **Vegetable sticks**—1/4 cup<br>**Sliced peaches**—1/4 cup | **Tossed salad**—1/4 cup<br>**Fruit cup**—1/4 cup | |
| **Bread or bread alternate** | | | | | **Pumpernickel bread**—1/2 slice |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Other foods** | | | | | **Apple crisp with cheese**—1/2 cup |
| **Afternoon snack** (Select two of these four components) | | | | | |
| **Milk** | | **Milk**—1/2 cup | **Milk**—1/2 cup | | **Milk**—1/2 cup |
| **Meat or meat alternate** | **Plain yogurt**—1/2 cup mixed with small banana—1/2 mashed | **Peanut butter and banana sandwich** | | **Vanilla yogurt**—1/2 cup | |
| **Fruit, vegetable, or juice** | **Orange juice**—1/3 to 1/2 cup | | **Small banana**—1/2 sliced | **Grape juice**—1/4 to 1/2 cup | |
| **Bread or bread alternate** (including cereal) | | | **Unsweetened iron-fortified cereal**—1/3 to 1/2 cup | **Bran toastie**—1/2 | **Small oatmeal cookies**—2 |

Figure 12-9 cont. Sample weekly menus

| **Week three** | | | | | |
|---|---|---|---|---|---|
| **Pattern** | **1st day** | **2nd day** | **3rd day** | **4th day** | **5th day** |
| **Breakfast** | | | | | |
| **Juice, fruit, or vegetable** | **Pineapple juice**—1/2 cup | **Citrus fruit cup**—1/2 cup | **Fruit**—1/2 cup | **Orange sections**—1/2 cup | **Fresh berries (in season)**—1/4 cup |
| **Cereal, bread, or bread alternate** | **Oatmeal with raisins**—1/2 cup | | **English muffin**—1/2 to 1 | **Bran muffin**—1/2 to 1 | **Unsweetened, iron-fortified cereal**—1/2 cup |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Other foods** | | **Poached egg**—1 | **Cheese cubes**—1 oz. | **Peanut butter**—1 tsp. | |
| **Morning snack** (Select two of these four components) | | | | | |
| **Milk** | | **Milk**—1/2 cup | | **Milk**—1/2 cup | **Milk**—1/2 cup |
| **Meat or meat alternate** | **Plain yogurt**—1/2 cup, with 1/4 cup applesauce | | | | **Cheese**—1 slice |
| **Fruit, vegetable, or juice** | | | **Fruit juice**—1/2 cup | | |
| **Bread or bread alternate** (including cereal) | | **Bagel**—1/2 with peanut butter—1 tbs. | **Crackers**—2 to 4 | **Oatmeal cookie**—1 | **Bread**—1/2 slice<br>**Margarine**—1 tsp. |

## Figure 12-9 cont. Sample weekly menus

| **Pattern** | **1st day** | **2nd day** | **3rd day** | **4th day** | **5th day** |
|---|---|---|---|---|---|
| **Lunch or supper** | | | | | |
| **Meat or meat alternate** | **Chili con carne**—1/4 to 1/2 cup | **Chicken rice soup**—1/2 cup | **Tuna noodle casserole**—1/2 cup | **Beef stew**—1/2 cup | **Turkey sandwich** (1 oz. turkey, 1 tsp. mayonnaise, 1/2 to 1 slice bread) |
| **Vegetables and fruits** (two or more) | | **Assorted vegetable slices**—1/2 cup<br>**Orange wedges**—1/4 cup | **Green beans**—1/4 cup<br>**Carrot sticks**—1/4 cup<br>**Fruit cup**—1/4 cup | **Fresh garden vegetable**—1/2 cup | **Sweet red or green pepper slices**—2 |
| **Bread or bread alternate** | **Bread**—1/2 to 1 slice | | | **Whole-wheat bread**—1/2 slice | **Graham crackers**—2 |
| **Milk** | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup | **Milk**—3/4 cup |
| **Other foods** | **Pudding**—1/2 cup<br>**Margarine**—1 tsp. | **Cheese sandwich**—1/2 | | **Ice cream**—1/4 cup | |
| **Afternoon snack** (Select two of these four components) | | | | | |
| **Milk** | | | **Milk**—1/2 cup | | |
| **Meat or meat alternate** | **Cheese toast** (melt on 1/2 slice bread) | | | | |
| **Fruit, vegetable, or juice** | **Orange juice**—1/2 cup | **Fresh fruit**—1/2 | | **Chilled juice**—1/2 cup | **Orange juice**—1/2 cup |
| **Bread or bread alternate** (including cereal) | | **Buttered raisin bread**—1/2 slice | **Banana bread**—1 slice | **Crackers and cheese**—2 to 4 | **Rice pudding**—1/3 cup |

Figure 12-10. Menu planning worksheet

| **USDA Child Care Food Program snack and meal pattern** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
|---|---|---|---|---|---|
| **Breakfast**<br>Milk<br>Fruit and/or vegetable<br>Bread or cereal | | | | | |
| **Morning snack**<br>(serve any two of the following foods)<br>Milk<br>Fruit and/or vegetable<br>Bread or bread alternate<br>Meat or meat alternate | | | | | |
| **Lunch or supper**<br>(serve one)<br>Meat or meat alternate<br>Vegetable and/or fruits (serve two or more)<br>Bread or bread alternate<br>Milk<br>Other foods | | | | | |
| **Afternoon snack**<br>(serve any two of the following foods)<br>Milk<br>Fruit and/or vegetable<br>Bread or bread alternate<br>Meat or meat alternate | | | | | |

- Budget—Recognize that the budget is an important factor in planning a menu. If your program is not being reimbursed by the Child Care Food Program for meals served, your food costs will be a large part of your budget. Consider shopping at food cooperatives or food banks.
- Equipment—Consider the availability and capacity of equipment when planning menus. Ask the following questions: Is the oven large enough to accommodate the amount of food to be baked? Is there enough room in the refrigerator to store foods?
- Storage space—Check the availability of storage space before you plan the menu. Is there enough dry storage space for the number of cases of dry goods you'll need to order?
- Cultural diversity—Serve foods that represent different cultural food patterns and are familiar to children as a natural way to establish rapport with the children and their families. This practice will also educate children about various cultures and their food preferences.
- Season—Some foods, particularly fruits and vegetables, are more available during various times of the year. Plan your menus to include the fruits and vegetables that are in season. They are more economical and taste better.

### Guide for food preparation and service

These procedures for food preparation and service can be used by cooks and others involved with food service.

#### Food purchasing

- Be sure that suppliers of food and beverages meet local, state, and federal codes.
- Be sure that the meats and poultry you purchase have been inspected and passed for wholesomeness by federal or state inspectors.
- Use only pasteurized milk and milk products. If you use dry milk, prepare it in a sanitized container and refrigerate or use it immediately.
- Do not use home-canned foods.

#### Food storage

- Store all perishable foods at temperatures that will prevent spoilage (refrigerator temperature, 45° F. or lower; freezer temperature, 0° F. or lower).
- Place thermometers in the warmest part of the refrigerator and freezer (near the door) and check them daily.
- Set up refrigerators so that there is enough shelf space to allow for air circulation around shelves and refrigerator walls. This will help maintain proper food temperatures.
- Always examine food when it arrives to make sure it is not spoiled, dirty, or infested with insects.
- Store unrefrigerated foods in clean, rodent- and insect-proof, covered metal, glass, or hard plastic containers. (Large shortening cans available from bakeries are ideal for storing flour and other commodities.)
- Store containers of food above the floor (about 6") on racks or other clean slotted surfaces that permit air circulation.
- Keep storerooms dry and free from leaky plumbing or drainage problems. Repair all holes and cracks in storerooms to prevent insect and rodent infestation.
- Keep storerooms cool (about 60° F.) to increase the food's shelf life.
- Store all food items separately from non-food items.
- Use an inventory system: **The first food stored is the first food used.** This will ensure that stored food is rotated.

**Preparing and handling infant formula and foods sent from home. Always** wash your hands and utensils before handling breast milk, infant formulas, and foods. Be sure to follow directions on the packages regarding shelf life and preparation.

- Breast milk—Any breast milk sent from home should be in the infant's bottle with the child's name and the date. Do not store defrosted breast milk for longer than 24 hours. **Do not refreeze** previously frozen breast milk.
- Concentrated infant formula—This should be sent from the child's home in its original, factory-sealed container and reconstituted according to package directions. Refrigerate unused portions immediately. Never reuse a bottle of milk that has been warmed and/or used to feed an infant.
- Ready-to-feed infant formula—This can be served as is, unless parents provide instructions for special formula preparation. Accept only factory-sealed containers.
- Powdered formula—Reconstitute as directed on the container.
- Junior foods—Serve commercially prepared junior foods from a **serving dish,** not the food jar. Cover, date, and refrigerate open jars of junior foods and use the contents within 48 hours.

#### Food preparation and handling

- Wash all raw fruits and vegetables before use. Wash tops of cans before opening.

- Thaw frozen foods in the refrigerator or put quick-thaw foods in plastic bags under cold running water for immediate preparation. DO NOT thaw frozen foods by allowing them to stand at room temperature.
- Use a thermometer to check internal temperatures of the following foods to be sure they have been cooked evenly:
  —Poultry—heat to a minimum temperature of 165° F.
  —Stuffing—heat to a minimum temperature of 165° F. in a **separate** pan. (**Do not** cook stuffing inside poultry.)
  —Pork and pork products—minimum of 160° F.
- Prepare these potentially hazardous foods as quickly as possible from chilled products, serve immediately, and refrigerate leftovers immediately.
  —meat salads, poultry salads, egg salads, seafood salads, and potato salads
  —cream-filled pastries
  —other prepared foods containing milk, meat, poultry, fish, and/or eggs
- Prevent the growth of bacteria by maintaining all potentially hazardous foods at temperatures lower than 45° F. or higher than 140° F. during transportation and while holding until service. Bacteria multiply most rapidly between 45° and 140° F.
- Cover or completely wrap foods during transportation.
- Never reuse a spoon that has been used even once for tasting.
- Make sure that each serving bowl has a spoon or other utensil for serving food.
- Reserve food for second serving times at safe temperatures in the kitchen.
- Leftover food from serving bowls on the table must be thrown away with these possible exceptions
  —raw fruits and vegetables that can be thoroughly washed
  —packaged foods that do not spoil
- Place foods to be stored for reuse in shallow pans and refrigerate or freeze immediately to rapidly bring temperature to 45° F. or lower.
- Leftovers or prepared casseroles held in the refrigerator must be discarded after 2 days.
- Leftover foods should not be sent home with children or adults because of the hazards of bacterial growth during transport.
- Keep lunches brought from home in the refrigerator until lunch time.

**Storage of non-food supplies**

- Store all cleaning supplies (including dish sanitizers) and other poisonous materials in **locked** compartments or in compartments well above the reach of children and separate from food, dishes, and utensils.
- Store poisonous and toxic materials, other than those needed for kitchen sanitation, in **locked** compartments **outside** the kitchen area.
- Store insect and rodent poisons in **locked** compartments in an area apart from other cleaning materials to avoid contamination or mistaken usage.
- Bait put into food storage areas should be boxed and separated to prevent a possible contamination of food supplies.
- Clearly label all containers of poisonous material as poison and include information on appropriate antidotes.

**Cleaning and care of equipment**

- Cracked or chipped dishes or utensils may harbor bacteria. Throw them away. Avoid utensils with chipped or painted handles.
- Wash dishes using an approved method (see Chapter 4, p. 38 to 39).
- Wash equipment frequently
  —Clean range tops during food preparation as needed and on a daily basis.
  —Clean ovens and overhead hoods at least weekly.
  —Wash the inside and outside of refrigerators weekly with the bleach solution; defrost when ice is 1/4" thick.
  —Wash tables with the bleach solution before and after each meal.
- Set up a cleaning schedule to prevent contamination of food as follows:
  —Wet mop **floors** daily; scrub as needed.
  —Wash and sanitize **food preparation surfaces** between preparation of different food items (e.g., meat and salad) and between different meats (e.g., pork and chicken).
  —Wash and thoroughly sanitize **cutting boards** after cutting any single meat, fish, or poultry item. (Use only hard, nontoxic, non-wood boards that are free of cracks, crevices, and open seams.)
  —Wash and sanitize **can openers** daily.
  —Clean and sanitize **utensils** between use on different food items.
- Special notes
  —**Air dry all food contact surfaces** after cleansing and sanitizing. Do not use wiping cloths.

—Make sure no food contact surfaces are made of cadmium, lead, zinc, granite enamelware, or other toxic materials.

—Do not use cyanide to polish or clean silver.

—Be sure there are sufficient garbage cans to hold all garbage. These cans should have tight-fitting lids and be leakproof. Line garbage cans with plastic liners; empty and clean the cans frequently. Keep the garbage area clean at all times.

**Insect and rodent control**

- For flying insects, use only approved pyrethrin-based insecticides or a fly swatter in the food preparation areas. Use products in accordance with directions and cautions appearing on their labels. Do not allow insecticides to come in contact with raw or cooked food, utensils, or equipment used in food preparation and serving, or with any other food contact surface. Do not use insect strips that hang from the ceiling.
- Insecticides for crawling insects should be applied only by certified insect control personnel. A staff member should monitor where the insecticides are applied to be certain that food preparation surfaces or child contact areas are not contaminated.
- Be sure all doors and windows have screens in good condition. Keep screens closed at all times. Close all openings to the outside to prevent rodents and insects from entering.

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# Section F

## Special health issues

## Major concepts

- Children with special health conditions do best when their needs are met by health and mental health professionals and specialists, program staff, and parents working together as a team.
- Most children with mild and moderate special health needs can be served in mainstreamed group programs when proper prior planning has been done by the team.
- Staff, along with other members of the team including parents, need to observe these children carefully for signs and symptoms of special health needs.
- A wide variety of community resources at the state, regional, and local levels are available to assist programs and families.
- Some conditions, such as lead poisoning and abuse and neglect, are preventable. Other conditions, such as chronic health problems or physical disabilities, are not preventable. All these special health issues require appropriate intervention, regular monitoring, and daily care.
- Whenever possible, children with special health needs should not be excluded from activities. Rather, give these children extra help, change your expectations, or modify the materials or activity.

# 13

# Children with special needs

Children with a wide range of problems or disabilities—those with speech and language problems, problems getting along with other children, chronic illnesses, family difficulties, abusive or neglectful parents, or developmental delays or physical impairments—can benefit from being in group situations with non-handicapped children. The lives of other children and staff can also be greatly enriched by including special needs children in mainstreamed early childhood programs.

Some children with special needs will require extensive individual program planning and extra services. Others will need staff to help them for limited times or in minor ways. Whatever the special need, staff must remain attentive to reactions of the child, family, the other children and families in the program, and staff members; and they must be flexible in planning activities. Each program also needs to be realistic about which children it can safely and appropriately serve and which it cannot; children should be considered on a case-by-case basis.

Several other chapters in this manual may also provide helpful information. For example, Chapter 6 presents safety issues to consider with a particular special needs child in mind. Chapter 8 offers emergency-related advice that may have special importance for a program with a handicapped child. Chapter 14 presents information on abused or neglected children, and Chapter 16 describes chronic health conditions that you may encounter.

Nancy P. Alexander

*Mainstreaming gives all children the opportunity to learn and grow by experiencing the strengths and weaknesses of their friends. Children with special needs learn self-reliance and master new skills.*

## Mainstreaming

### What does mainstreaming mean?

*Mainstreaming* means helping people with handicaps live, learn, and work in typical settings where they will have the greatest opportunity to become as independent as possible. In early childhood programs, mainstreaming can be defined as the integration of handicapped children and non-handicapped children in the same classroom. It gives handicapped children the chance to join in the mainstream of life by including them in a regular preschool experience, and it gives all children the opportunity to learn and grow by experiencing the strengths and weaknesses of their friends.

Mainstreaming, however, does not simply involve enrolling handicapped children in a program with non-handicapped children. Definite steps must be taken to ensure that handicapped children participate actively and fully in classroom activities. You are responsible for taking the steps outlined in the "Modifying your program" section of this chapter.

### Benefits of mainstreaming

Research on children has shown repeatedly that the early years of life are critical for learning and growth. It is during this time that children's cognitive, speech and language, physical, social, and emotional development can be most influenced. If their special needs are recognized and met during these years, handicapped children will have a much better chance of becoming competent and independent adults. Handicapped children who are given the opportunity to play and learn with other children in the classroom learn more about themselves and how to cope with the give-and-take of everyday life. This is one of the first steps they can make toward developing independence. When children with special needs participate in regular early childhood settings that provide for their special needs and have teachers who know how to adapt teaching techniques and activities, they will have a head start toward achieving their fullest potential.

**Mainstreaming helps handicapped children.** When children with special needs participate in a mainstreamed classroom as a welcome member of the class, they learn self-reliance and master new skills. For some, it may the first time in their lives that they are expected to do for themselves the things they are capable of doing. When they work and play with other children, handicapped children are encouraged to strive for greater achievements. Working toward greater achievements helps them develop a healthy and positive self-concept.

Mainstreaming can be an especially valuable method for discovering undiagnosed handicaps. Some handicaps don't become evident until after children enter elementary school, and by then much important learning time has been lost. Teachers of young children have the opportunity to observe and compare many children of the same age, that makes it easier to spot problems that may signal a handicap. See Chapter 9 for additional information on developmental milestones and screening instruments.

**Mainstreaming helps able-bodied children.** Mainstreaming can help non-handicapped children, too. They can learn to accept and be comfortable with individual differences. Some studies show that children's attitudes toward handicapped children become more positive when they have the opportunity to play together regularly. They learn that handicapped children share their ability to do some things better than others. In a mainstreamed classroom, non-handicapped children have the opportunity to make friends with many different individuals.

**Mainstreaming helps parents.** Mainstreaming can also be helpful for the parents of children with special needs. These parents may feel less isolated, when you, the other members of the staff, and specialists share the responsibility for teaching their child. They can learn new ways to help their own child. As they watch their child progress and interact with non-handicapped children, parents can begin to think about the child more realistically. They will see that some of the behaviors that concern them are probably typical of all young children, not just children with handicaps.

**Mainstreaming helps teachers.** Mainstreaming can also have advantages for you. You will have the chance to make a significant impact on a handicapped child. The techniques you develop for working with a child with special needs will be just as useful with non-handicapped children who have minor weaknesses in the same areas. In fact, many of the most effective teaching techniques known were first developed for handicapped children. Finally, working with handicapped children is a chance to broaden both your teaching and personal experience.

**How is mainstreaming carried out?**

Mainstreaming can be carried out in a variety of ways. Your decisions about the best ways to mainstream a particular handicapped child will depend upon the child's strengths, weaknesses, and needs. Every child is an individual with different needs and abilities. This is just as true for a handicapped child who displays a broad range of behavior and abilities. Your decisions will also be influenced by the parents, the staff, and the resources within your community.

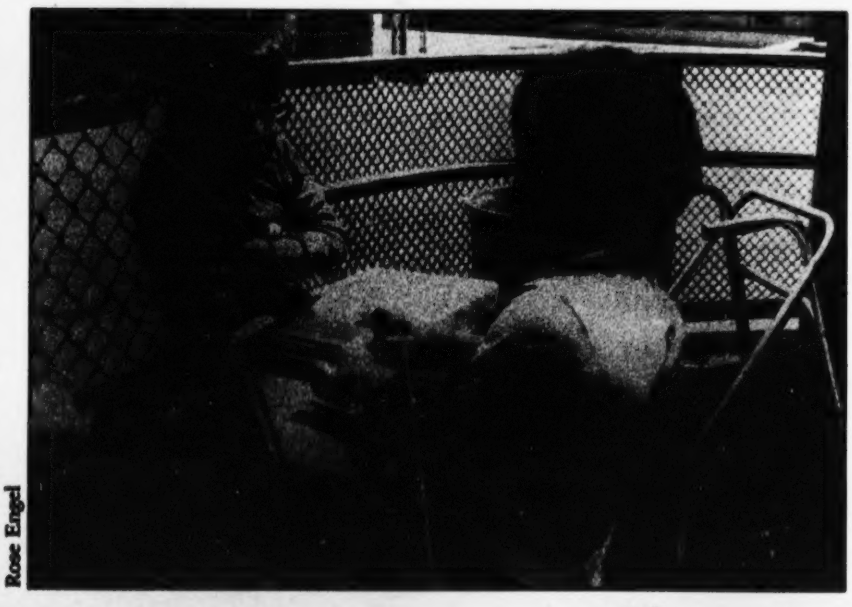
Some handicapped children may thrive in a full-day program with non-handicapped children. Others will do best in a mainstreamed environment for only part of the time, attending special classes or other programs for the rest of the day. For still others, mainstreaming may not be the most helpful approach. Follow the principle—*Place handicapped children in the **least restrictive environment.*** This means that the early learning experiences of handicapped children should be as much like those of non-handicapped children as possible, while still meeting the special needs created by their handicaps. The least restrictive environment should be **individually** determined for a **particular** child at a **particular** time, and reassessed regularly.

Mainstreaming involves the efforts of many people working as a team. This team includes teachers, the child's parents, other specialists providing consultant services on a full- or part-time basis, agencies serving handicapped children, and the public schools. The identification of team members and development and coordination of their efforts is both a challenge and a critical requirement for meeting the needs of a handicapped child.

## Staff's feelings and attitudes toward special needs children

Each staff member will probably experience different feelings, both positive and negative, toward a handicapped child. Different handicaps may evoke different emotions and responses. You may feel sympathy, pity, frustration, repulsion, caring, anger, fear, and/or acceptance. Each of these feelings may affect how you respond to a child with a handicapping condition.

Feeling sorry for the child may lead to an overly protective attitude; you may try to shelter the child from experiences that non-handicapped children have on a daily basis. Pity may prevent you from seeing the child's strengths and expecting the most from a child. Your anger may flare up when you realize the extra responsibility or work required as you deal with a handicapped child. You may experience fear and insecurity if you do not have adequate information about the handicapping condition or feel that you are not capable of meeting the child's needs. Your feelings of acceptance and caring may happen immediately or may develop as you get to know the child and view her or him as an individual.



Rose Engel

*Take steps to learn about specific handicapping conditions so that you can see children as children first.*

Subjects & Predicates

*The primary goal of mainstreaming is to enable handicapped children to participate actively in classroom activities and to operate as independently as possible.*

Regardless of your feelings, it is best to first admit and acknowledge them to yourself. Then, share these feelings with other staff who are supportive and who may help you deal with your feelings in a healthy way. Most of you did not choose special education as a career and may feel unprepared to work with various handicapping conditions. Often teachers have found that working on a daily basis with children who have handicaps has helped to ease their anxiety and fear. These teachers have taken steps to learn about the specific handicapping conditions and have learned to see the children as children first. They have learned to place emphasis on the whole child rather than on the child's handicap or limitations. Learning to see beyond a particular handicapping condition is a skill you can develop.

## Resources and support

You are not expected to be an expert in special education; however, there are many ways you can prepare yourself to work with a handicapped child. You can read about a particular disability; you may find that the child's parents have a wealth of information to share. You can visit other classrooms where children with similar handicaps are being taught. Specialists, particularly those who have worked with or evaluated the child, may have valuable suggestions. Seek permission from the parent to contact the child's physician and others who are working with the child so child care goals, activities, and evaluations for the child can be coordinated among all the members of the child's "team." Training sessions, conferences, or workshops can provide excellent background material.

Your local hospital, college, clinic or other community agencies may be able to provide you with information and assistance. Your state or local school system may be responsible for providing services to preschool handicapped children under Public Law 94-142, the Education for All Handicapped Children Act and for younger children under Public Law 99-457.

National associations may be able to send you specific information on a handicap and may serve as an important resource for parents. A list of national associations is provided in Figure 13-1.

## Modifying your program

When children with handicaps are enrolled, modifications or adaptations in teaching techniques, equipment, and routine may be needed to facilitate these children's active participation in your program. The primary goal of mainstreaming handicapped children is to enable them to participate actively in classroom activities and to allow them to operate as independently as possible. For this reason, a program that enrolls handicapped children should meet these objectives:

- adapt the program to ensure successful participation
- develop handicapped children's feelings of competence
- promote peer acceptance
- avoid overprotection
- strengthen the teamwork between parents, teachers, and other specialists

## Figure 13-1. National resources for children with special needs

**Alexander Graham Bell Association for the Deaf,** 3417 Volta Place, N.W., Washington, DC 20007. 202-337-5220.

Provides information on home training and amplification.

**American Academy of Pediatrics,** P.O. Box 927, 141 Northwest Point Blvd., Elk Grove Village, IL 60009.

American Diabetes Association, National Service Center, P.O. Box 25757, 1660 Duke Street, Alexandria, VA 22313. 703-549-1500.

**American Heart Association,** 7320 Greenville Avenue, Dallas, TX 75231. 214-750-5300.

**American Lung Association,** 1740 Broadway, New York, NY 10019. 212-315-8700.

**American Speech-Language-Hearing Association,** 10801 Rockville Pike, Rockville, MD 20852. 301-897-5700.

Education and professional organization for speech, language, and audiology. Provides clinical services. Free public information literature is available on request.

**Association for Children and Adults with Learning Disabilities (ACALD),** 4156 Library Road, Pittsburgh, PA 15234. 412-341-1515.

Provides information on advocacy, publications, and new developments related to children with learning disabilities.

**Association for Retarded Citizens,** 2501 Avenue E East, P.O. Box 6109, Arlington, TX 76011. 817-649-7718.

Serves professionals and parents, and addresses issues of retarded persons of all age levels. Disseminates information on retardation, parent needs, and many other topics. A catalog and brochure are free upon request.

**Association for the Severely Handicapped,** 7010 Roosevelt Way, N.E., Seattle, WA 98115. 206-523-8446.

Publishes a monthly newsletter for parents and professionals concerned with children having great need for special assistance.

**Clearinghouse on the Handicapped,** U.S. Department of Education, 400 Maryland Avenue, S.W., Room 3132, Switzer Building, Washington, DC 20202-2319. 202-732-1250.

Responds to inquiries on a wide range of topics, especially on federal funding for programs serving the disabled, federal legislation affecting the handicapped, and federal programs benefiting handicapped people. "The Pocket Guide to Federal Help for the Disabled Person" is free upon request.

**Closer Look,** 1201 16th Street, N.W., Washington, DC 20036. 202-639-4404.

National information center for parents, professionals, students, and disabled adults seeking assistance in dealing with problems and needs of the mentally, physically, or emotionally disabled. When writing for information, be as specific as possible; for example, include facts about the person's known or suspected handicapping condition, her or his age, and the kind of help being sought. You will receive a packet of material including pamphlets and reading lists; the semi-annual newsletter, *Report from Closer Look;* addresses of parent organizations and local groups; and selected information about additional resources.

**Council for Exceptional Children,** 1920 Association Drive, Reston, VA 22901. 703-620-3660.

Provides information on handicapped and gifted children. Maintains a library and data base on professional literature in the field of special education. Prepares books, monographs, digests, media, search reprints, journals, and the ERIC microfiche collection.

**Epilepsy Foundation of America,** 4351 Garden City Drive, Landover, MD 20785. 301-459-3700 or 800-332-1000.

Provides free information on epilepsy and educational materials dealing with seizure disorders; provides referral services; monitors related legislative activity; is a strong advocate to help obtain needed services and rights for persons with epilepsy and their families. Affiliates have job placement programs and support groups.

**Head Start,** P.O. Box 1182, Washington, DC 20013. 202-744-7782.

Handicapped children eligible for Head Start are preschoolers defined by the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35) as "mentally retarded, hard of hearing, deaf, speech-impaired, or other health-impaired children who by reason thereof require special education and

## Figure 13-1 cont. National resources for children with special needs

related services." Head Start is primarily for those who meet poverty-level requirements, but there are exceptions. To locate a Head Start program in your area, check the telephone directory or contact the national office.

**March of Dimes Birth Defects Foundation,** 1275 Mamaroneck Avenue, White Plains, NY 10605. 914-428-7100.

**National Association for the Visually Handicapped,** 305 E. 24th Street, New York, NY 10010. 212-889-3141.

Provides free learning materials for parents to help their children, including large print books and a monthly newsletter, and to keep families informed on the new techniques used with the visually handicapped.

**National Audiovisual Center,** National Archives and Record Services, 8700 Edgeworth Drive, Capitol Heights, MD 20743-3701. 301-763-1896.

Catalogs are available for audio-visual materials by subject area, for example, special education.

**National Easter Seal Society for Crippled Children and Adults,** 2023 W. Ogden Avenue, Chicago, IL 60612. 312-243-8400.

Provides rehabilitation services to people with physical handicaps.

**National Hemophilia Foundation,** SOHO Building, 110 Greene Street, New York, NY 10012. 212-219-8180 ext. 406.

Provides free literature on hemophilia and handicapping conditions that can result from it; provides referral services.

**National Information Center for Educational Media (NICEM),** Access Innovations, Inc., P.O. Box 40130, Albuquerque, NM 87196. 800-421-8711.

Indexes non-book media materials in all subjects at all grade levels.

**National Information Center for Handicapped Children and Youth (NICHCY),** P.O. Box 1492, Washington, DC 20013. 703-522-3332 (Voice or TDD).

Free information service to ensure that all children and youth with disabilities have a better opportunity to reach their fullest potential. Services include personal response to questions, referral to other organizations, information packets, special education and referral services (career recruitment materials), state-of-the-art publications, and technical assistance to parent and/or professional groups.

**National Mental Health Association,** 1021 Prince Street, Alexandria, VA 22314. 703-684-7722.

Provides referral services for the general public. Makes available a large collection of free literature. For further information, call the number here or refer to your local Yellow Pages listings for "Mental Health."

**Office of Special Education Programs,** U.S. Department of Education, 400 Maryland Avenue, S.W., Room 3090, Switzer Building, Washington, DC 20202-3511. 202-732-1007.

Administers Public Law 94-142, the Education for All Handicapped Children Act, that guarantees appropriate free public education for children with handicapping conditions. The Washington, D.C. office and regional offices in the United States receive complaints of violations of the law and act on these complaints, if necessary.

**The Self-Help Center,** 1600 Dodge Avenue, Suite S-122, Evanston, IL 60204. 312-328-0470.

Research and information clearinghouse that offers free information to those seeking self-help group locations, contact persons, and telephone numbers.

**Sickle Cell Disease Foundation of Greater New York,** 209 W. 125th Street, Room 208, New York, NY 10027. 212-865-1201.

Many of these groups have local chapters who may be able to provide services and information. Check your telephone directory.

**Adapt the program**

The selection and adaptation of materials for children with handicaps requires problem solving and a little creativity. For some handicaps special materials are required and may need to be purchased. Examples of such materials are

- eating utensils with special grips or edges
- puzzles with large pieces and/or knobs for children with fine motor problems
- books with large pictures for children with visual handicaps
- a magnifying glass

Staff can also adapt materials already available. For example, they can

- apply masking tape to brush handles and crayons so children can get a firmer grip
- slit a rubber ball and slide the paint brush or crayon through it so children can grab it better
- cut out fabric to paste on a storybook to make it more tactile
- lower an easel
- use more visuals to accompany classroom discussions
- use a wedge, standing table, bolster, or other special equipment

Adaptations to the environment may depend on the type and severity of a child's handicap. For example, if a classroom is to accommodate a child in a wheelchair, the staff can do the following:

- measure traffic lanes between areas to ensure that the child can maneuver from one area to the next
- check the height of tables to ensure that the arms of the wheelchair fit under them, or find an alternate seating arrangement
- add blocks under a table to slightly increase the height
- explore the use of a scooter board instead of a wheelchair, if appropriate, for mobility around the classroom
- confirm ready access to and from the building
- add ramps instead of, or in addition to, steps
- position a water tray or a table so the child can reach it

Jim Bradshaw

*When children are provided an opportunity to watch adults relating comfortably to children with handicaps, they take the first step toward learning peer acceptance.*

### Developing feelings of competency

**All** children need to feel a sense of competence. For some children with handicaps, learning and relating take more time and effort. To ensure successful experiences for children, staff can

- observe children closely to see what interests them
- talk with children about themselves, their families, pets, experiences
- break tasks into a sequence
- allow sufficient time to use new skills before moving on to something new
- offer a variety of materials and activities suited to different levels of ability
- provide an emotionally safe classroom by respecting children
- focus on the process of learning rather than the end result
- accept different answers from different children
- set clear and realistic goals for each child

### Promote peer acceptance

Children must be provided with positive role models so that they learn to interact with others in a kind, accepting way. When they are given an opportunity to watch you and other adults relating comfortably to children with handicaps, they take the first step toward learning peer acceptance. Children should be given factual information about handicaps to dispel misunderstandings and diminish fear. Staff can encourage the acceptance of a handicapped child in the following ways:

- Always answer children's questions accurately, using language that is easily understood.
- Reassure children that handicaps are not "catching" (contagious).
- Provide simulation activities so that children can have some idea about what it is like to be handicapped. For example, whisper or put cotton in ears so that children know what a hearing loss sounds like. Lead children on a blindfold walk so that they experience the loss of vision.
- Plan activities that allow the other children to see the child with a special need in a successful role.
- Have materials routinely available that depict handicapped people. For example, include books about disabled children in the reading corner, and include dolls or puppets with handicaps (commercially available from Mattel).
- Invite adults with disabilities into the classroom and have them participate.
- Focus on the similarities as well as the differences among people.

### Avoid overprotection

Overprotection limits a child's opportunities to grow to full potential. Pity and fear may limit a teacher's ability to allow a child with a handicap to take risks, to respond to limits, to engage in conflict, and to experience **real** success and failure. Staff can avoid overprotection by remembering the following concepts:

- Limits need to be set for all children (a child with a handicap must also wait for a turn on the slide).
- It is important to provide many options and activities in the classroom so that children do not become overly dependent on adult direction.
- All children should be encouraged to try new activities they wouldn't naturally choose.
- Your attitude and feelings will be conveyed to the children, who see you as an important role model. If you avoid overprotection, the children will follow.
- You should keep an eye on the behavior of the children. Do not allow handicapped children to become the baby.

### Strengthen teamwork

For a child with a handicapping condition, the necessity for teamwork becomes even greater. To ensure that the special needs of a child and family are met, parents, teachers, and administrators must communicate closely and regularly. Collaboration on the following tasks is especially important:

- identify the special needs of a child with a handicap(s)
- plan and implement a classroom program responsive to the child's needs
- pinpoint any changes in a child's condition
- talk or meet with other specialists who provide therapeutic services
- share information, observations, concerns, and the progress of a handicapped child
- obtain special materials, information, and resources to help work with a handicapped child

When team members focus on providing a child and family with a supportive, caring environment, the personal feelings of role possessiveness, inferiority, or superiority can often be eliminated. Focusing helps a team see each member's contribution as essential to achieving the goals for the child.

## Handicapping conditions

States, local school systems, organizations, and pertinent legislation may all have different definitions for conditions that are considered handicaps. A list of handicapping conditions with basic descriptions is provided here. You may want to check with your local school system for the definitions applicable to your own community.

| **Handicapping condition** | **A person with this condition is** |
|---|---|
| Mentally retarded | One who shows significant, below-average intellectual functioning combined with impairment in adaptive behavior and who will have difficulty both in schoolwork and in everyday living. |
| Deaf | One whose hearing is extremely defective. |
| Hearing impaired | One who has slightly to severely defective hearing or a specific hearing loss. |
| Blind | One who is sightless or has very limited vision and must depend on hearing and touch as the chief means of learning. |
| Visually impaired | One who is considered legally blind by the state, or one who has very limited vision even with corrective lenses. |
| Serious emotional disturbance | One who is identified by a psychologist or psychiatrist as requiring special services because of dangerous aggressiveness, severe withdrawal, severe anxiety or depression, or other socioemotional difficulty. |
| Physical (orthopedic) handicap | One who has a condition that impairs normal development of muscle activities (for example, one who has spina bifida, cerebral palsy, or loss of limbs). |
| Specific learning disability | One who has a disorder in understanding or using spoken or written language (such as perceptual handicaps, brain injury, dyslexia). |
| Speech and/or Language impaired | One whose speech is impaired by receptive and/or expressive language impairment, stuttering, or serious articulation problems. |
| Other health impairment | One who has a chronic health condition (such as severe asthma, epilepsy, hemophilia, severe cardiac condition, diabetes). |
| Multi-handicapped | One who has, in addition to the most severe handicapping condition, one or more other conditions. |

Within each handicapping condition there may be a wide range of functioning. It is important, therefore, to understand both the characteristics of a disability as well as the particular special needs of individual children. These terms should never be used to label children.

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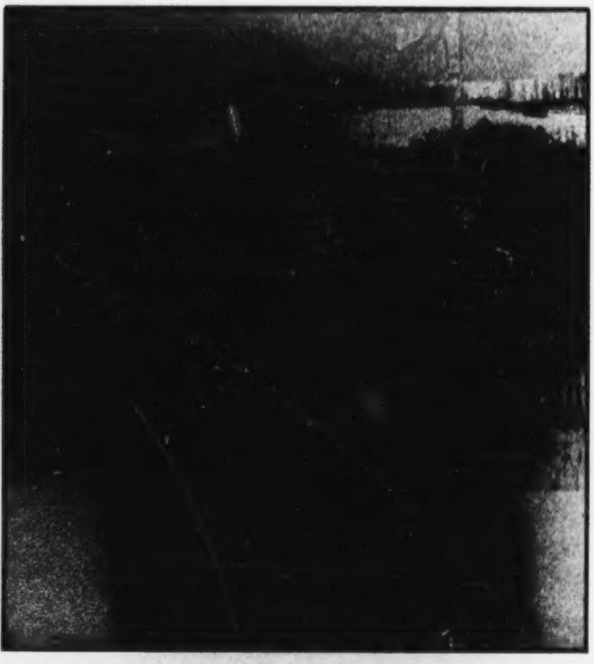
# 14

# Child abuse and neglect

Many factors contribute to the maltreatment of children, making the identification, treatment, and prevention of child abuse and neglect complex. There are several types of child abuse and neglect and each leaves a permanent mark on the victim.

No standard definition is used by all professionals who deal with child abuse and neglect. Every state has one or more legal definitions that are used to establish official reporting procedures. Various agencies also develop their own definitions for reporting and accepting cases of abuse and neglect. However, most definitions have common elements. The National Committee for Prevention of Child Abuse (NCPCA) defines child abuse as a **"non-accidental injury or pattern of injuries to a child for which there is no 'reasonable' explanation."** Child abuse includes
- non-accidental injury
- neglect
- sexual molestation
- emotional abuse



Paul M. Schrock

*All communities—urban, suburban, and rural—experience child abuse that occurs regardless of ethnicity, race, religion, or income level.*

It is impossible to identify how many children are abused each year, since the definitions of abuse and neglect, as well as reporting practices, vary from state to state. It is estimated, however, that at least 1,000,000 children are abused each year, and that between 2,000 and 5,000 die each year as a direct result of child abuse. All communities—urban, suburban, and rural—experience child abuse that occurs regardless of ethnicity, race, religion, or income level.

## Identification of abused and neglected children

Educators are required to report all suspected cases of abuse and neglect. As an educator, you are probably willing to comply with your professional responsibility but may feel that you lack the information required for accurate identification of those cases. The following indicators are provided to help you identify suspected cases of abuse and neglect in children. Many of these indicators are signals that the child is **possibly** being abused; however, some could also be caused by other physical, environmental, or emotional problems.

### Physical abuse

A physically abused child is one who has received injuries from shaking, beating, striking, burning, or other similar acts. You should suspect **physical abuse** has occurred when any of these conditions exist.

- repeated or unexplained injuries (burns, fractures, bruises, bites, eye or head injuries, bilateral clustered injuries) beyond the usual bumps and bruises of active children

The following are often seen in cases of abuse or neglect. They should be considered in light of explanations provided, medical history (especially if inconsistent), and the developmental abilities of the child to engage in the activities said to cause the injury.

**Bruises and welts**

- bruises on any infant, especially bruises on the face
- bruises on the backside of a child's body
- bruises in unusual patterns that might be made by an instrument (e.g., belt buckle or strap) or human bite marks
- clustered bruises that might indicate repeated contact with a hand or object
- bruises in various stages of healing

**Burns**

- immersion burns indicating dunking in a hot liquid ("sock" or "glove" burns on the arms or legs or "doughnut" shaped burns of the buttocks or genitalia)
- cigarette burns
- rope burns
- dry burns indicating that a child has been forced to sit upon a hot surface or has had a hot instrument applied to the skin

**Cuts, tears, or scrapes**

- cuts of the lip, eye, or any portion of an infant's face
- any cut or scrape on external genitalia

**Head injuries**

- absence of hair or bleeding beneath the scalp due to hair pulling
- black eyes
- bruised, bloody, swollen eyes
- swollen mouth or jaw
- loosened or missing teeth

If injuries look more serious, children probably should be taken to a physician or hospital.

Other conditions that may indicate physical abuse include

- frequent complaints of pain
- wearing clothing to hide injuries, wearing clothing inappropriate for weather conditions
- reports of harsh treatment
- frequent lateness or absenteeism; parents arrive too early or leave child after closing
- unusual fear of adults, especially parents
- malnourished or dehydrated appearance
- avoidance of logical explanations for injuries
- withdrawn, anxious, or uncommunicative behavior, outspoken or disruptive behavior
- lack of seeking and/or giving affection
- evidence that the child was given inappropriate food, beverage, or drugs

### Emotional abuse

An emotionally or psychologically abused child is one who has been verbally abused by her or his parent(s) or who has had excessive or inappropriate demands placed on her or his emotional, social, or physiological capabilities. You should suspect **emotional abuse** has occurred when any of these indicators are present.

- is generally unhappy and seldom smiles or laughs
- is aggressive and disruptive or unusually shy and withdrawn
- reacts without emotion to unpleasant statements and actions
- displays behaviors that are unusually adult or childlike
- exhibits delayed growth and/or delayed emotional and intellectual development
- has low self-esteem
- receives belittling or degrading comments from her or his parents
- fears adults

### Sexual abuse

A sexually abused child is one who has been exploited for any sexual gratification such as rape, incest, fondling of the genitals, exhibitionism, and/or voyeurism. You should suspect **sexual abuse** has occurred when a child exhibits any of these indicators.

**Physical indicators**

- difficulty in walking or sitting
- torn, stained, or bloody underclothing
- complaints of pain, itching, or swelling in genital area
- pain when urinating
- bruises or bleeding in external genitalia, vaginal or anal areas, mouth, or throat
- vaginal discharge
- venereal disease or vaginal infections

**Behavioral indicators**

- unwilling to have clothes changed or to be assisted with toileting
- holds self, wants to be changed although not wet
- unwilling to participate in physical activities
- extreme changes in behavior such as loss of appetite
- withdrawn or infantile behaviors; may go back to earlier behaviors (such as bed-wetting, thumb sucking)
- extremely aggressive or disruptive behavior
- unusual interest in or knowledge of sexual matters (normally, 3-year-olds may masturbate frequently and show great interest in body parts, especially the genitalia); expressing affection in ways inappropriate for a child of that age
- poor peer relationships
- fear of a person or a strong dislike of being left somewhere or with someone
- child reports sexual assault

**Physical and emotional neglect**

A child who is a victim of physical or emotional neglect is one who has not received sufficient physical, emotional, intellectual, or social support from her or his caretaker(s). The level of neglect may range from beginning stages to truly gross proportions. You should suspect **physical neglect** when a child

- lacks supervision
  —very young children left unattended
  —children left in the care of other children too young to protect them
  —children inadequately supervised for long periods of time or when engaged in dangerous activities
- lacks adequate clothing and good hygiene
  —children dressed inadequately for the weather
  —persistent skin disorders resulting from improper hygiene
  —children chronically dirty and unbathed
- lacks medical or dental care
  —children whose needs for medical or dental care or medication and health aids are not met
- lacks adequate education
  —children who are chronically absent
- lacks adequate nutrition
  —children lacking sufficient quantity or quality of food
  —children consistently complaining of hunger or rummaging for food
  —children suffering severe developmental lags
- lacks adequate shelter
  —structurally unsafe housing or exposed wiring
  —inadequate heating
  —unsanitary housing conditions

In identifying neglect, be sensitive to

- different cultural expectations and values
- different childrearing practices

Neglect is not necessarily related to poverty; it reflects a breakdown in household management, as well as a breakdown of concern for and caretaking of the child.

## Characteristics of child abusers

All adults have the capacity to strike out in anger, fear, pain, or frustration, and this capability makes it possible for all of us to be potential child abusers. Yet most people have the ability to control these violent impulses. Child abuse can happen when adults

- are under stress
- are isolated, without support
- have unfulfilled needs for nurturance and dependence
- feel that their failures outnumber their successes
- were abused themselves and lack nurturing childrearing experiences
- keep their frustrations inside until they finally boil over

Many of the causes of child abuse can also be traced to societal or personal problems such as marital difficulties, economic problems, unemployment, the loss of a supportive, community feeling in our neighborhoods, and the acceptance of violence as a way of dealing with problems.

## How early childhood educators can help abused children

Early childhood programs are the only places where young children are seen on a daily basis for an extended time by professionals trained to observe their appearance, behavior, and development. You may be the first person to suspect (and to report) abuse and neglect. When you suspect that something is amiss, you should try to gather some more data to substantiate your suspicions.

Children who are abused or neglected will not be able to learn or participate to their maximum potential. These children may carry emotional scars for life. Depending on the kind and/or severity of abuse and neglect, long term physical effects can include motor impairment, loss of hearing or vision, mental retardation, and/or learning and emotional problems. Thus it is essential that you take action to interrupt the cycle of abuse and neglect by helping children and parents receive needed treatment. Your trusting relationship with children is a major factor in helping children and families cope with and resolve such difficult situations.

### Legal and ethical issues

All states have mandatory reporting laws for child abuse. Most states require (and no state forbids) the reporting of suspected child abuse and neglect by educators. Many states provide penalties for those who are mandated to report suspected child abuse but who fail to do so. On the other hand, **every** state provides immunity from civil or criminal liability.

### Problems you may encounter

You may have mixed feelings about reporting suspected abuse. You may not want to become involved or you may feel that parents have the right to discipline their child in their own way. You may also be reluctant to face the fact that someone you know may be a possible abuser. This is a natural feeling, but must be overcome. Once you are aware that your involvement is required and that child abuse and neglect differ from acceptable childrearing practices, much of this reluctance should disappear.

At times it will be difficult to decide whether or not to tell a parent beforehand that you are going to make a report. Of course, if you feel that a child is in imminent danger and you believe the parent may disappear with the child, call the appropriate agency immediately and do not tell the parent. Most frequently, however, you will be faced with a situation where you know and care about the parent, and the child is not in imminent danger. You may worry that telling the parent will evoke hostility and anger, that may spur the parent to remove the child from your program. However, if you fail to inform parents, they may feel betrayed or deceived. As a general rule, it is probably better to inform the parent of your decision to make a report. You might start by explaining that, as an educator, you are **required** to report all instances of known or suspected child abuse. Although they may be very angry, they will see that you had no choice in the matter.

You may also have had previous experiences with reporting suspected child abuse and neglect and may be reluctant to become involved again. Perhaps you felt that a social worker discouraged you from reporting, or was unresponsive, or that a case was not adequately handled. Perhaps you have heard of cases where nothing was done and that abuse continued or escalated. These concerns are often valid. But a previous bad experience does not mean that next time things will not be handled better. You must file a report regardless of previous experiences. The law requires it, with no exemptions. Abused and neglected children cannot be protected unless they are first identified and reported.

You may worry about endangering your relationship with the child's parents by reporting your suspicion. Although the identity of the reporter of child abuse is supposed to remain anonymous, parents will suspect who reported them by the nature of the information contained in the report. Many abusive parents are grateful for the identification—a guilty secret for them. This is especially true if supportive services result from making the report. Each case requires individual handling, but in general, it is best to advise the parent that a child abuse/neglect report is being filed **as required by law,** that the person filing the report is seeking help for the family. Even if the parent adamantly denies any abuse or neglect, filing of **suspected** abuse or neglect is required so concerns about the problem can be aired and put to rest.

**You should get a copy of your state's child abuse reporting statute.** This can be obtained from a local department of social services, law enforcement agency, district attorney's office, or the DHHS regional office of child development. Check how the report will be handled once filed so you can explain the procedure to parents when you inform them about your responsibility to report their child. Every program has a responsibility to inform staff of appropriate federal, state, local, and program regulations regarding child abuse and neglect.

Your program should have a written policy on child abuse and neglect. At minimum this policy should include

- requirements for reporting suspected child abuse and neglect
- a code of conduct for staff relating to their behavior with children
- procedures for investigating staff or job applicants for child abuse and neglect
- decision-making guidelines for hiring staff previously accused, indicted, and/or found guilty of child abuse and neglect

## Reporting procedures

### What and when to report

You must consult your state statutes to determine just what is considered child abuse and neglect. **No state requires that the reporter have proof that abuse or neglect has occurred before reporting.** The law may specify reporting of suspected incidents or include the phrase *reason to believe.* **Incidents must be reported as soon as they are noticed,** since waiting for proof may involve grave risk to the child.

### Where to report

Each state specifies one or more agencies to receive reports of suspected child abuse and neglect. Usually this agency is the department of social services, human resources, or public welfare. **It is important to know who receives reports of suspected child abuse and neglect in your jurisdiction.** Some states maintain a 24-hour hot line just for reports of suspected child abuse or neglect.

### How to report

State statutes vary with regard to the form and contents of reports of suspected child abuse and neglect. All states require that an oral or written report (or both) be made to the specified agency. Usually the information included in the report should contain

- the name, age, and address of the child
- the name(s) and address(es) of the parent(s)
- the name and location of the reporter (sometimes not required, but extremely helpful)

## Preventing abuse and neglect in programs for young children

### Discipline

Your program should have a philosophy and policy that provide guidelines for disciplining children. **Corporal punishment should not be used,** and children should not be punished in any way that interferes with their daily functions of living such as eating, sleeping, or toileting. Expectations should be developmentally appropriate for children, and limits should be realistic. Children should be taught positive and appropriate words, actions, and ways of relating to other children and adults. Adults should model positive patterns of interaction.

If you know or suspect that a staff member has abused or neglected a child you should contact the appropriate agency immediately.

### Injury

If a child arrives with an injury requiring immediate medical attention, you should take the child to a doctor or to an emergency room for treatment. If you notice bruises, cuts, burns, or other injuries on a child, you should ask the parent how the injury occurred, what treatment has been provided, and what care or precautions must be taken.

As a routine practice, you should keep careful records for every child, noting all injuries received while in your program and any other injuries that come to your attention. In your record include a description of the injury, date, time, and how it was received, if known; any statements by parent or child; and treatment given. Always notify parents immediately if any injury or illness occurs. See Chapter 8 for further information.

### Sudden Infant Death Syndrome

One of the most difficult situations to deal with is the death of a child, and one of the most frightening types of death is that of a sleeping, apparently healthy infant who dies for no apparent reason. Sudden Infant Death Syndrome (SIDS), also known as crib death, is a well-recognized event in the health care field and is the major cause of death in infants after the first month of life (up to two deaths per 1,000 live births). We do not yet fully understand the causes of SIDS, but we do know that it is NOT predictable or preventable; that it is not caused by suffocation, aspiration, or regurgitation; and that the infant does not struggle or make any noises to alert a caretaker. As far as we know, there is nothing we can do to prevent the tragedy of SIDS.

Because of the obvious trauma that an unexpected death of a healthy baby can cause, however, child care providers have been accused of abuse or neglect in such circumstances. In the very unlikely event that an apparent SIDS death occurs in your program, you should be aware that an autopsy can verify that there was no identifiable cause of death (disease, suffocation). If the need arises, contact your state public health department and state chapter of the national SIDS support program for help for the family, the staff, and other families in the program who will understandably be very upset by knowing about a SIDS case in a family in the program.

### Accusations of abuse in the program

If a complaint of child abuse is filed against your program or staff, it will be investigated. Your program should have a policy specifying the internal steps that will be followed during the investigation. It is possible that a teacher may be removed from the classroom and given a job that doesn't require interaction with children. Staff may be suspended or given leave with or without pay during the investigative period. Parents of other children in the program may be contacted. Staff members' past employment records may be checked. Do not panic, but it may be wise to contact an attorney.

### Screening potential staff

During the hiring process, you should find out if the applicant has been convicted of any violent and/or sex-related crimes or of driving under the influence of alcohol or drugs. Ways you can learn about an individual include

- an interview with the candidate
- a reference check
- observation of the candidate in the job for which she or he is applying, if possible
- a search for information from those who know the candidate, including past co-workers and parents
- a check of public records related to child abuse and neglect convictions

A probationary (trial) period for new employees is strongly recommended. During this time, you will have the chance to monitor new staff members by observing and discussing their performance. Parents may be encouraged to drop in and visit the new employees as well. Each new employee must receive a copy of your program's written policies on staff conduct and on reporting procedures for suspected child abuse.

The most important step program directors can take to guard against child abuse and neglect is to ensure that there is adequate daily supervision of all staff and that children can not be taken to any area of the child care program where they can not be easily viewed by other adults.

### Working with families and children

As a sensitive, perceptive teacher or director, you may note the early warning signs of a potentially abusive or neglectful situation. This is, of course, the best time to act. You should become aware of, and let parents know about, community agencies that provide needed support services such as respite care, counseling, temporary shelter, drug treatment, or Food Stamps. Share your knowledge of child development and childrearing techniques with parents. Let them know if you recognize signs of stress in their children. Share your concerns with parents and help them share their concerns with you.

Your early attention and intervention could save a child from harm and maintain a family's integrity. Make it a part of your job to get to know parents so you can build a trusting, sharing relationship with them.

Another part of prevention is educating young children about their right to say *no.* Particularly in the area of child sexual abuse, children can learn to try to stop the abuse and how to tell a trusted adult about the experience. The concept of teaching children about "good touches" and "bad touches" is controversial. Care must be taken not to teach children that genital touching or fondling is "bad" since such touching is a normal and "good" part of mature sexual practice, and masturbation is commonplace among preschoolers. Children can be taught that doctors must check "private parts," but that otherwise, private parts should not be shown to anyone without checking with a parent. There are many excellent materials for young children on this topic. Figure 14-1 presents a guide for evaluating these materials.

## Figure 14-1. Considerations when examining materials on child sexual abuse/personal safety for young children

### Content

_____ Does the material teach assertiveness, build self-esteem, and help children develop problem-solving skills?

_____ Is it appropriate for the age group recommended? Is it easy to understand?

_____ Does it portray a range of touches that are good, as well as touches that are bad without implying that genital touching itself is bad?

_____ Does it describe verbal as well as physical abuse?

_____ Does it encourage children to trust their own feelings and instincts?

_____ Does it teach children whom to tell if there is abuse? Does it identify the range of people who make up a child's support system? Will the child understand that there are others to tell if one person doesn't believe her or him?

_____ Do the pictures, examples, and/or music avoid frightening a child?

_____ Is the material free from bias? Does it include a variety of male and female, racial and ethnic, urban and rural situations? Does it avoid stereotypes?

_____ Is the material sensitive to the needs of handicapped children?

_____ Does the material teach caution with strangers without making children fearful of helpful strangers, such as police officers? Are children made aware that most adults are trustworthy?

_____ Does it discuss family abuse in an appropriate way?

_____ Is the material compatible with classroom/school philosophy?

### Curriculum package

_____ Is there a teacher's guide? Does it recognize that a teacher may be uncomfortable teaching about child sexual abuse and may not be well informed on the subject?

_____ Does the curriculum provide supplemental materials for parents and teachers and explain how the materials are to be used?

_____ Are the curriculum and guide complete? Is everything contained in the package or does it specify all the materials you need? Can you get the materials?

_____ What is the cost of the curriculum and other materials? Is the package cost-effective?

_____ Is it flexible? Does it allow the teacher to combine activities or to choose from a variety of activities?

_____ Does it help the teacher to deal with disclosure once a child has confided?

_____ Are any audiovisuals short enough to keep a child's attention?

_____ Does it suggest ways to involve parents?

_____ Is the material pretested? What are the expected outcomes of using the curriculum? Are the stated purpose and outcome compatible?

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Adapted from the Head Start, Region III, Task Force on Child Abuse and Neglect.

## Figure 14-2. National resources for information on child abuse and neglect

These organizations provide information, resource lists, and/or training on various aspects of child abuse and neglect. You should also check with your local public health and mental health agencies for state and local resources.

**Children's Defense Fund,** 122 C Street, N.W., Washington, DC 20001. 202-628-8787.

**For Kids Sake, Inc.,** 753 Lambert Road, Brea, CA 92621. 714-529-8358.

**National Center on Child Abuse and Neglect,** P.O. Box 1182, Washington, DC 20013. 202-245-2840.

**National Child Abuse Hotline** (a referral service). 800-422-4453.

**National Committee for Prevention of Child Abuse,** 332 S. Michigan Avenue, Suite 950, Chicago, IL 60604. 312-663-3520.

**National Legal Resource Center for Child Advocacy and Protection,** c/o American Bar Association, 1800 M Street, N.W., Washington, DC 20036. 202-331-2250.

**Parents Anonymous,** National Office, 22330 Hawthorne Boulevard, Suite 208, Torrance, CA 90505. 213-371-3501 or 800-421-0353. (California only—800-352-0386).

**Parents United, Inc.,** National Program for the Prevention of Child Sexual Abuse, P.O. Box 952, San Jose, CA 95102. 408-280-5055.

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# 15

# Lead poisoning

Lead poisoning is the damage caused by too much lead in the body. Even small amounts of lead can interfere with a child's learning and behavior. Large amounts may cause serious damage to the brain, kidneys, nervous system, and red blood cells. Young children are at greatest risk for lead poisoning because of their natural curiosity and hand-to-mouth activity. They are exposed to many sources of lead in their normal environment and absorb a high proportion of the lead to which they are exposed, especially if their diets lack adequate iron or calcium.

Knowledge of lead poisoning should be an essential aspect of training for all early childhood educators. Educate parents about the dangers of lead poisoning and encourage them to have their children screened even if the state does not require it. Each child's medical history should contain lead screening results.

## Sources of lead

Most lead poisoning happens when lead paint chips or leaded dust is swallowed. While most paints sold since the mid-1970s have not contained lead, many older homes and public buildings still have layers of lead based paint. Children become lead poisoned from eating, chewing, or sucking on lead-painted surfaces or items coated with lead dust. Typical sources include railings, window wells and sills, door sills, toys, furniture, and jewelry. Children are easily lead poisoned if they are around old buildings that are being renovated or redecorated. Children touching things with sticky fingers are likely to pick up the contaminated dust or material.

Soil is often overlooked as a source of lead. Soil can be contaminated by paint that has weathered or been scraped or sanded off buildings. Lead can also accumulate in soil from the residue of auto exhaust from gasoline containing lead. Children playing outdoors who get dirt on their hands and then put their hands in their mouths can become lead poisoned. Lead is most highly concentrated in house dust and in soil within 3′ of a building or in areas close to busy streets, parking lots, and driveways.

Dust and fumes created by renovation and sandblasting are also important lead sources. Adults working in lead-related jobs or crafts can also contribute to a child's exposure by bringing home lead dust on their clothes, hands, and hair. Another source of lead is lead solder used with water pipes in new construction, or in older plumbing, lead pipes.

## Lead screening

Most children who are lead poisoned show no symptoms. Early symptoms such as headache and stomachache, tiredness, fussiness, and poor appetite are vague and can be easily mistaken for a viral infection, teething, or stress. A blood test is the best way to find out if a child is lead poisoned.

The blood screening test is a simple finger stick to collect a small amount of blood. Ideally, children between the ages of 9 months and 6 years should receive this test yearly, but children between 9 months and 3 years who live in high-risk areas should be tested every 6 months. In low-risk areas (with mostly newer housing) lead screening may not be done because it is not cost-effective.

Because lead levels tend to rise in the summer, a screening test should be done during the months of May through October. Most doctors will screen children for lead. Many boards of health also provide screening tests, usually at no cost. If an elevated blood-lead level is found, children will be referred to their health care providers for follow-up.

## Treatment and follow-up

If the initial lead screening test is elevated, the child must have a venous lead test since finger-stick blood screening tests can be contaminated by lead on the hands of the child or the person drawing the blood. A venous blood test (usually drawn from the vein inside the elbow) is the only way to determine the child's actual lead level.

The child's health care provider will decide on treatment based on the venous lead test. For moderate levels of lead poisoning, the medical treatment may be limited to removing the source of lead and testing the child's blood frequently to ensure that she or he is no longer being exposed. Sometimes iron is prescribed, since the lead present in the blood interferes with the body's ability to manufacture healthy red blood cells.

Children with higher levels of lead poisoning may be treated with a chelating agent. Chelation removes lead from the body and causes it to be passed through the kidneys. This treatment, consisting of daily injections either into a muscle or vein, can be done in a hospital or through a clinic. Most often the treatment lasts for 5 days. Children who have very high lead levels may require more than one course of treatment.

Following the diagnosis and treatment of lead poisoning, children must continue to have frequent blood-lead tests to determine if additional treatment is necessary or to detect evidence of re-exposure. Lead-poisoned children should have careful developmental testing to identify learning or behavioral problems. Although the medical treatment for lead poisoning cannot reverse brain damage, an enriched environment may help children overcome or compensate for their disabilities.

## Environmental management

When a child is identified as lead poisoned, her or his dwelling should be inspected by a state or local health inspector. All deteriorating paint and all accessible, chewable lead paint must be removed from interior surfaces, common areas, and exterior surfaces. Each case must be followed until the deleading is completed and the child's lead level is normal.

Deleading is very hazardous. Specific safety precautions must be taken to prevent poisoning workers as well as the occupants. Steps must also be taken to prevent contaminating other parts of the building, children's play areas, and soil. No children or pregnant women should be present during deleading, renovation, or sandblasting. Check with your department of public health for specific information. Be sure your child care program facility is lead-free.

## Measures to protect children

Early childhood programs and parents must actively work to protect children by taking the following steps:

- Comply fully and promptly with all applicable state and local regulations regarding lead testing and removal.
- Have soil tested. Contact your nearest agricultural extension service for information.
- Never let a child dig in contaminated soil.
- Remove or cover contaminated soil (pave, sod, or add mulch, gravel, or new topsoil).
- Plant bushes close to buildings to discourage play there.
- Plan gardens and play areas away from painted structures and busy roads.
- Install a fence or bushes as a barrier between busy streets and play areas and gardens.
- Provide a diet rich in iron and calcium, low in fats.

Use the same measures recommended to control the spread of germs to help prevent lead dust buildup on hands and surfaces.

- Clean your own and children's hands frequently, especially before preparing food or eating, after touching pets or shoes, gardening, playing in soil, or crawling.
- Wet-mop floors, window wells, and sills frequently with a trisodium phosphate (TSP) to absorb lead. This is available over the counter.
- Provide clean teething toys to discourage chewing on railings, painted items, or paper products.
- Teach children to throw away any food that falls on the floor.
- Keep indoor toys inside and outdoor toys outside.

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# 16

# Chronic health conditions

Almost every early childhood program includes several children with chronic health problems or medical conditions. For example, more than 1 of every 10 preschool children has some type of allergy. Other less common conditions are asthma, heart problems, and epilepsy.

Children with chronic health conditions already in programs generally have mild forms of the problems and, most of the time, are able to participate in the normal routines. Even children with more severe forms of these conditions, or with less common chronic illnesses, can be involved in programs with sound planning (see Figure 16-1).

General information about each chronic condition can usually be obtained by contacting a voluntary agency associated with the disease (see Figure 13-1). It is important that you get detailed information from parents about their children's health problems. When doing this, you need to ask specific questions. The child's health record should include an additional section that describes the child's chronic illness (see Figure 16-2).

## Allergy

### What is it?

An allergic reaction is a special type of inflammatory (swelling) response in various parts of the body to a substance in the environment that most people tolerate without any problem. Hay fever, asthma, eczema, hives, and sinusitis are common allergic reactions.

### How do people get allergies?

It is thought that the tendency to develop allergies largely is inherited from a parent or parents, although the parent may have had allergies only as a child or may have had one type of allergy while the child has another. Allergies develop when a person is repeatedly exposed to a substance and the body's immune system, normally protective against foreign substances, overreacts to the substance, causing symptoms.

### What triggers an allergic reaction?

The foreign substances that cause an allergic person's body to react are called allergens. These allergens may be swallowed, inhaled, or touched. Common allergens include

- indoor and outdoor dust
- pollen from trees and weeds
- mold from plants, dead grass, and leaves
- animal fur and feathers
- insect venom (bee or other insect stings)
- foods such as eggs, nuts, chocolate, shellfish, cow's milk, and wheat (the last two are especially common allergens for infants)

### What are the symptoms of an allergic attack?

Allergic children do not have symptoms all the time. Rather, they have a **tendency** to react under certain conditions. For example, a child with an allergy to chocolate may be in perfectly good health unless she eats chocolate, in which case she may develop hives or abdominal pains.

Symptoms of an allergic reaction depend on which part of the body is especially sensitive to the allergen.

Allergens that are **inhaled** can cause

- asthma attacks
- sneezing
- itchy eyes
- coughing

Allergens that are **ingested** (eaten) can cause

- itchy throat
- nausea/vomiting

## Figure 16-1. Program considerations for young children with health impairments

| Consideration | Mild | Mild to moderate | Moderate | Severe |
|---|---|---|---|---|
| **Is the child handicapped?** | No | Possibly | Yes | Yes |
| **How does the health impairment affect the child's functioning?** | Health impairment does not interfere with day-to-day functioning and learning. | Health impairment does not interfere with learning, but there is a possibility of unusual episodes or crises. | Health impairment either presents frequent crises or so limits the child's opportunity to participate in activities that it interferes with learning. | Health impairment is so severe that special medical attention is regularly needed. The child's opportunity for activity is so limited that she or he may not be able to participate in a regular classroom. |
| **Must the program be modified?** | No | No change in program planning is necessary. Watch for unusual occurrences and report them to parents. Know any first-aid procedures that might be required. | Activities will have to be modified to allow a health-impaired child to participate. Staff must know proper first-aid procedures and be prepared to deal with children's questions about crises. | Extensive staff and program changes are necessary to accept child into program. Home- or hospital-based programs may be more appropriate. Classroom support from medical services will be necessary if child is in classroom. |

Adapted from Healy, McAvearey, Von Huppel, & Jones, 1978.

## Figure 16-2. Chronic illness health record

Name of child ______________________________

1. Which health problems (chronic illnesses) does the child have?

   _____ allergies to ______________________

   ______________________________

   _____ anemia

   _____ asthma

   _____ diabetes

   _____ epilepsy

   _____ heart trouble

   _____ kidney trouble

   _____ sickle-cell disease

   _____ other ______________________

   ______________________________

   ______________________________

2. What happens to the child when she or he has a crisis related to the condition(s)?

3. What procedures would the staff follow to

   a. prevent these crises?

   b. deal with them when they occur?

4. Does the staff need to be trained in any particular emergency procedures (e.g., CPR)? If so, which one(s)?

## Figure 16-2 cont. Chronic illness health record

5. What medication(s) does the child take?

a. Are there any side effects (including behavioral)? From which medicines?

b. Does the child need to have medication during program hours? On what schedule?

6. Check all of the program areas that require any changes. Tell us what changes or special arrangements need to be made.

a. _____ Diet. What?

b. _____ Order of activities. Describe:

c. _____ Types of activities. Describe:

d. _____ Length of activities. Describe:

e. _____ Naptime routine. Explain:

f. _____ Toileting. Explain:

g. _____ Other. Explain:

7. Name of person(s) other than yourself (selves) to contact for questions about this child's condition if you are unavailable

Person: ______________________

Relationship to child: ______________________

Phone: ________—______________

Person: ______________________

Relationship to child: ______________________

Phone: ________—______________

8. Any other information you feel we should have:

Person completing form ______________________
(please print)

Date ______________________

- diarrhea
- hives/skin rash

Allergens that are **touched** can cause

- itchy/blotchy skin
- skin rash/hives

In extremely rare instances, a child will develop an overall allergic response that causes the voice box to swell and makes breathing difficult. This reaction should be treated **immediately** by a physician, since it can be fatal. Some people have this kind of reaction to bee stings and need to have available a bee sting kit that contains an injection to treat the reaction.

### What is the treatment for allergies?

The most effective approach to treat allergies for most children with mild problems is to figure out what specific allergens cause the reaction and then avoid exposing the children to them. Some allergens are treated by medications, either taken regularly (everyday or during certain seasons) or when the child is having allergic symptoms. Desensitization may be used with some children who have severe allergies and/or asthma.

Dena Bawinkel

*Keeping pets such as rabbits, guinea pigs, and other furry animals in group programs can cause problems for children with allergies.*

### What should staff do during an allergic attack?

Use common sense. If staff can identify the allergen, either **remove the child from the allergic environment or take the irritant out of the child's space.** If the allergen cannot be easily identified, and the child's symptoms do not decrease, the staff member should **try to keep the child calm, quiet, and comfortable while she or he contacts the parent or physician.** Severe reactions must be treated immediately according to the procedures the parents have specified.

Parents should be required to leave detailed instructions on what to do if any reaction occurs.

### How should programs integrate children with allergies?

**Most children with allergies require no special planning at all; common sense is the key to handling these children successfully.** For example, if a child develops uncomfortable itchy eyes one spring day on the playground, she or he should be brought inside. Or, a child with a food allergy should not be given that food, and all the parents in the group with the allergic child could be asked not to bring birthday treats containing the food.

Some of the main problems for allergic children in group programs are the following:

- keeping pets such as rabbits, guinea pigs, and other furry animals
- damp/moldy basements or bathrooms
- field trips to farms or zoos; hikes in the woods or playing in leaf piles

Modifications in your program or physical space may be required to avoid allergic reactions.

## Asthma

### What is it?

Asthma is a respiratory problem in which breathing is difficult and often accompanied by a wheezing or whistling sound. Wheezing is caused by this combination of events in the lungs: the muscles surrounding the air tubes in the lungs tighten, the tissues lining the air tubes swell, and an extra amount of mucus is produced. The airways are narrowed because of these events, and air passing through makes a wheezing sound. Most children with asthma have attacks only occasionally. At other times, they are fine.

### How do people get asthma?

Asthma can be caused by allergic and nonallergic triggers. Children with allergic asthma probably inherited the tendency from one or both parents. It is not yet clearly understood how children develop nonallergic asthma.

### What triggers an asthma attack?

Because children's lungs are especially sensitive if they have asthma, a variety of factors can trigger an attack including

- allergens, such as dust pollens, molds, feathers
- weather conditions, such as cold air, weather changes, windy or rainy days
- smoke, both cigarette and other types
- odors, such as paint fumes, aerosol sprays, cleaning materials, chemicals, perfumes
- infections, especially viral respiratory tract infections
- exercise, especially strenuous exercise in cold or damp weather
- sleeping with head not raised, especially when the child has a cold

### What are the symptoms of an asthma attack?

During an attack, a child has discomfort or tightness in the chest and has difficulty breathing. This is usually accompanied by the wheezing sound, especially when breathing out (exhaling). Sometimes coughing and spitting up mucus are part of the episode. Asthma attacks can frighten children, or they may appear tired and listless.

### What is the treatment for asthma?

Depending on the frequency of attacks and severity of the asthma, a range of treatments is available. Often, asthma attacks are mild and will calm down with rest or treatment within a short time. Keeping the child away from the irritants that are known to cause wheezing is the first step. Some children take regular medications to relax airways, making it easier to breathe; prevent exercise-induced asthma; decrease inflammation; and relieve nasal/sinus congestion, itching eyes, and sneezing.

Special equipment called *nebulizers* convert the medicine into a fine mist that can be inhaled. Some children with asthma use nebulizers on a regular basis or to treat an attack. Other children need asthma medications only during particular seasons or when they have colds.

### What should staff do during an asthma attack?

You should have detailed instructions about what to do during an asthma attack, including a description of which symptoms are particularly worrisome. **An asthma record for each child must be attached to the child's general medical form** (see Figure 16-3). General guidelines include the following:

- Remove the child from the allergen, if it is known.
- Try to keep the child calm and relaxed.
- Keep the child sitting upright.
- Encourage the child to drink fluids (but nothing ice cold).
- Administer medications as indicated by parents and doctors.

### How should a program plan to accommodate children with asthma?

Most children with asthma can participate in the usual early childhood program's activities. Adults in contact with these children should know emergency procedures and what allergens to avoid in the classroom environment and in foods served. If a child tends to get asthma during exercise, staff should keep close watch during strenuous activity. If an asthma attack begins, the child should be kept quiet and encouraged to relax; after the attack, the child may be able to continue playing. Be sure to let parents know of the attack at the end of the day so that they can monitor the child's condition.

**Parents of children with asthma know their children's limitations and should be consulted frequently so your program does not unnecessarily limit the child's activity.**

## Heart problems

### What are they?

The heart is a muscle that pumps blood through the body. It is divided into four hollow parts called chambers. The blood goes from the heart to the lungs to pick up oxygen. The blood then returns to the heart so it can pump the blood out to the body. As the oxygen is used up, the blood returns to the heart and the process begins again.

## Figure 16-3. Asthma record

**Child's name** ______________________________

**Parents' names and phone numbers**

______________ **(work)** ______________ **(home)** ______________

______________ **(work)** ______________ **(home)** ______________

**Physician's name and phone number**

______________________________

1. **Describe the child's asthma symptoms, including when they generally occur. What triggers an attack?**

2. How are mild episodes (attacks) treated?

3. How are serious episodes treated?

4. **Is this child on daily medication?** __________
   **If so, give details here:**

5. **Are there any side effects of the medication—physical and/or behavioral?**
   **If so, please explain.**

## Figure 16-3 cont. Asthma record

6. Does strenuous activity seem to trigger episodes? ________
   If so, under which conditions should this child not participate in sports?

7. Do weather conditions affect the asthma? ________
   If so, how?

8. Does the child understand asthma? ________

   If yes, does the child participate in the management of this condition? ________
   How?

Additional comments

Date ______________________________

Heart problems occur when one or more of these are not working properly:
- the pumping chambers
- the valves that separate the pumping chambers and keep the blood flowing in the proper direction
- the blood vessels leading to or from the heart

### How do children develop heart problems?

Most heart problems in children are congenital (present at birth). These congenital defects begin in the early part of pregnancy when the heart is forming. Heart disease also may occur in children who have had rheumatic fever, an unusual complication of strep throat. They are left with scarred valves that do not properly control the flow of blood between pumping chambers.

### What is the treatment for children with heart problems?

Many congenital heart defects are mild and do not require therapy. The most severe congenital heart defects and some heart disease from rheumatic fever can be corrected or vastly improved with surgery. Other heart defects can be treated with drugs or mechanical aids such as pace-makers.

Often children who have had rheumatic fever will take daily antibiotics to prevent them from catching another strep throat that could possibly cause further damage to their heart valves.

### What are the symptoms of heart disease?

Congenital heart problems can be identified in infants who have a bluish color, difficulty breathing, or abnormal growth and weight gain. These children, as well as those with rheumatic heart disease, may tire easily and feel weak. In most cases, heart problems are already known to parents before a child is enrolled. However, in case they are not, it is important to alert parents to any such symptoms as they may indicate heart disease.

### How can programs accommodate children with heart problems?

Children with heart problems not fully corrected by surgery or children recovering from surgery may require modifications in the daily program because their stamina and endurance may not match that of other children. These modifications include --

- shorter active play periods
- additional rest periods, longer naps
- more frequent smaller meals
- administration of regular medications

It is important to obtain detailed information from parents and doctors describing the types and amounts of activities in which these children can participate. Activity restrictions are unusual because children will generally pace themselves. If you are uncertain if a child should take part in a particular event (e.g., dance or movement), get advice from the doctor and/or parent. Make sure to explain to the other children the reasons for the child's limited activity and provide opportunities to excel in non-physical areas. **Do not restrict the child beyond what is requested by doctors or parents.**

It is important that children with a history of rheumatic fever not contract strep throat. **If there are cases of strep throat in your program and you have a child who has had rheumatic fever, inform her or his parents immediately.**

## Epilepsy/seizure disorder

### What is it?

The brain serves as a master control center for almost all functions of the body including movement, thinking, feeling, and talking. It sends electrical charges along nerves to body parts and also receives and interprets these electrical signals.

Epilepsy is a disorder of the brain in which the brain sometimes becomes overloaded with electrical charges and produces a set of uncontrollable movements called *seizures* or *convulsions*. The loss of control is temporary, and the brain usually functions normally between seizures. Epilepsy is fairly rare compared to allergies; it is estimated that between 1 and 2% of all children have some form of seizure disorder. Among preschoolers, it is thought to be less than 1 child per 100.

The two most common types of seizures are *grand mal* and *petit mal* (absence) seizures.

- **Grand mal** seizures are the most dramatic seizures and affect the whole body. Grand mal seizures usually last only a few minutes. During this time the person becomes unconscious and may shake violently; drool at the mouth; and/or bite lips, cheeks, or tongue. The individual may also have no control over bladder and bowel movements. A deep sleep may follow the seizure. In some cases, the seizure is preceded by a special feeling that differs from person to person. This warning sign is called an *aura* and enables the person to get ready by lying on the floor to prevent a fall.

- **Petit mal** (absence) seizures are very short and usually very frequent. The child may seem to stare blankly, blink, or experience slight twitching, and then return to an activity. Though this behavior is often mistaken for daydreaming, a child experiencing an absence seizure cannot be roused out of the seizure, as one can do with a daydreaming child. Petit mal seizures are most common in young children. Children with petit mal often have hundreds of brief (absence) seizures each day.

### How do children get epilepsy?

There are many different known causes of seizures in children, including

- high, rapidly rising fever
- infection, such as viral encephalitis
- metabolic or body chemistry imbalance
- head injury/trauma (complication at birth or afterward)
- poisoning, such as lead poisoning

Heredity may also be a factor. For many children with epilepsy, however, there is no known explanation for the brain's malfunctioning.

### What triggers an epileptic seizure?

Some children's seizures have known triggers including fatigue, blinking lights, scary amusement rides such as roller coasters, certain sounds or odors, or rapidly rising fever. For other children there are no known triggers.

### What is the treatment for epilepsy?

At present, there is no cure for epilepsy. However, almost half of all people with epilepsy have their seizures completely controlled by medications and other treatments. An additional 30% of people with epilepsy have their seizures substantially, although not totally, controlled.

Most children with epilepsy will be taking daily medication. Information on the medication, possible side effects, and seizure triggers should be obtained from parents and physicians.

### What should staff do during a grand mal seizure?

Although a grand mal seizure appears frightening, it is not dangerous to the child and generally will pass without complications. These steps should be taken by staff members during a grand mal seizure.

- Remain calm.
- Remember that there is no way to stop a seizure once it has begun, except by methods available to a physician.
- If the child is on the floor, leave her or him there; if the child is elsewhere, place her or him, on either side, on the floor.
- Clear the area of hard, hot, sharp, or pointed objects.
- Place a soft pillow or clothing under child's head.
- Loosen tight clothing.
- Turn the head to the side so the child can breathe and saliva cannot collect in the throat.
- **Do not place any sticks or other objects in the mouth during a seizure!**
- Do not try to interfere with or stop the seizure movements (except to prevent serious injury from knocking against something).
- Stay with the child until the seizure ends (usually 2 to 3 minutes) and help her or him to a comfortable place to rest for a while.
- Have a treatment plan prepared for seizures that last more than 15 minutes (status epilecticus). Emergency contacts and transportation to a hospital should be arranged immediately.
- Reorient the child to activities.

It is critical that the child not be made to feel awkward after a seizure. The teacher should discuss seizures with the child's group in advance so the other children will be prepared.

### What should a program do to integrate a child with epilepsy?

Most children with epilepsy take medication to control their condition and therefore no special planning is needed for them. It is important, however, to train staff in emergency procedures and get complete medical information from parents and physicians. In the case of children who have occasional seizures, the staff should know which activities might be dangerous and should prepare the other children to be helpful if they see a grand mal seizure.

**As with other conditions, the child with epilepsy should not be restricted from participating in the full program, unless specific limitations are imposed by parents or physicians.**

### What are febrile seizures?

**Febrile seizures** are seizures in children younger than 4 years that usually occur as the child's temperature is rising. They last less than 15 minutes and cause no permanent harm. Once a child has been evaluated and found to have febrile seizures, no treatment is needed other than cooling the child off during illness with fever.

## Sickle-cell anemia

### What is it?

Anemia is a general term for a blood disorder caused by too few red blood cells or too little hemoglobin—the pigment that gives the red blood cells their color. These red blood cells are important to the breathing process and they feed the body's other cells; therefore, people with anemia often seem to be tired or to lack energy.

With sickle-cell anemia, the normal round red cells take on a sickle shape, and they do not contain the correct amount of oxygen. They have difficulty moving through the smaller blood vessels and become damaged or destroyed. Sickle-cell anemia is most commonly found in Black children and young adults.

### How do people get sickle-cell anemia?

Sickle-cell anemia is a disease that children inherit from their parents. Parents may be unknowing carriers and pass the defective gene on to their children. Both parents must pass on a defective gene to produce a child with sickle-cell anemia, but either parent can pass on a defective gene to produce a child who carries the sickle-cell *trait*.

### What happens during a sickle-cell crisis?

Sickle-cell anemia affects children differently. A small percentage are able to participate in all activities, but a far greater number have intermittent periods of fatigue and pain. When a large number of sickled cells stick together in a blood vessel, the blockage is called a *crisis*. It usually causes extreme pain in the place where it occurs. Common locations are the hands, feet, legs, and abdomen.

### What triggers a sickle-cell crisis?

A sickle-cell crisis can be set off by an infection, fatigue, unusual stress, or overexertion. At times, a crisis occurs without any identifiable trigger.

### What is the treatment for sickle-cell anemia?

Sickle-cell anemia is not curable, although it can sometimes be controlled by medication. Its complications can often be treated. Children with sickle-cell anemia should avoid overexertion and infections. Some children with sickle-cell anemia require hospitalization to deal with painful crises and infections.

### How should a program prepare to integrate a child with sickle-cell disease?

Because a child with sickle-cell disease is particularly vulnerable to infection, the decision to place such a child in a group setting is a delicate one that should be reached jointly by parents, physicians, and staff. A child with a mild case may be able to participate fully and should be encouraged to do so. You should have detailed information on the child's ability to engage in physical activities, beginning symptoms of illness or infection, and procedures to handle a sickle-cell crisis should it occur. Discuss the child's illness with other children in the group in a sensitive way.

Detailed emergency procedures must be available as well as several possible contact persons who know about the condition.

## Diabetes

### What is it?

Diabetes is a condition in which the pancreas, a gland located behind the stomach, does not produce enough of a natural chemical called *insulin*. Insulin is a very important substance that helps the body store and use (metabolize) sugar (glucose). All cells in the body need glucose to work properly, since it is their main fuel or food for energy. Without insulin, these cells cannot use the glucose already in the blood and do not get enough nourishment.

There are two forms of diabetes:

- insulin-dependent diabetes (also called Type I or juvenile-onset diabetes)
- non-insulin-dependent diabetes (also called Type II or maturity-onset diabetes)

Almost all children have the insulin-dependent form, which means they must add insulin to their bodies daily through injections, usually two each day. In addition to the insulin, each child needs to follow a special diet. Insulin and diet must be balanced with exercise. Food makes the glucose (blood-sugar) level rise; exercise and insulin make it fall.

Problems can result from an imbalance among these factors. The most common reaction, when blood-sugar level is too low, is called an *insulin reaction* or *hypoglycemia.* Much rarer is a blood-sugar level that is too high; this results from not enough insulin to allow sugar to be used. Acids and fruity-smelling ketones build up. The person starts to breathe differently and can become unconscious if the situation is not corrected. This condition is called ketoacidosis and can lead to a *diabetic coma.* This does not come on suddenly and is generally not a concern for child care program personnel.

### How do children get diabetes?

The causes of diabetes are not yet known. However, it is generally thought that a child inherits diabetes, and many diabetic children have a family history of the disease.

### What is the treatment for diabetes?

Most insulin-dependent diabetic children must have insulin injections twice daily. They must stay on a diet that is specifically planned for their normal activity level and temperament. Exercise is necessary to control diabetes. Finally, using a simple procedure several times each day, the blood or urine should be tested to determine their blood-sugar level. Although diabetes is not curable, in most cases it can be controlled so that children may lead full lives.

### What triggers an insulin reaction?

An insulin reaction occurs when the glucose level is too low, either because of too much exercise or too little food. An insulin reaction is usually sudden.

### What are the symptoms of an insulin reaction?

There are warning signs that an insulin reaction is going to occur. Often a child will feel these symptoms coming on and alert a staff member.

- staggering/poor coordination
- irritability/unusual behavior
- pale color/sweating
- confusion/disorientation
- excessive hunger
- trembling/crying
- headache and dizziness
- abdominal pain or nausea
- blurred vision
- drowsiness/fatigue

**If an insulin reaction is not treated immediately, unconsciousness and convulsions may occur.**

### What should a staff member do during an insulin reaction?

- Follow the procedures, approved in advance, by the parents and physicians.
- Provide sugar immediately in the form of orange juice, other sugar-containing juice, or granulated sugar.
- Reassure the child.
- Call parents or physician if there is no improvement within 10 to 15 minutes.
- When the child is feeling better, provide a small snack.
- Invite the child to resume activities.

### How should a program prepare for a child with diabetes?

- Collect basic information about the child's diabetes prior to enrollment using the chronic illness health record (Figure 16-2). Note additional information on emergencies that may occur as well. Make sure you get information on signs and symptoms the child usually exhibits before an insulin reaction; when insulin reaction is most likely to occur; and the most effective treatment and amount.
- Acquaint all staff with the signs of an *insulin reaction* and how to treat it. Post general procedures in each classroom.
- Make sure every staff member has quick access to sugar or the sugar-containing foods suggested by the child's physician.
- Prepare meals in accordance with the child's special requirements. Work out meal plans with the parents and/or consulting dietitian.
- Give meals and snacks on time.
- Have the child eat an extra bit of food before strenuous exercise, if prescribed.
- Assist in monitoring the child's blood-sugar level if requested. Review this or any other special requirement with the parent and physician.
- Explain insulin reactions to the other children so they can inform an adult if a reaction occurs.

**Children with diabetes should not be unduly restricted from involvement in all activities.**

Katherine Nell

*Know what behaviors a child is likely to have during and after a crisis and how long it usually lasts.*

## Review of emergency planning considerations

These summary points, adapted from *Mainstreaming Preschoolers,* apply to all programs serving children with chronic conditions.

- Prepare for emergency situations by talking to parents or the child's doctor.
- Be aware of what may cause a crisis and how often it may occur.
- Be aware of how the child may behave before a crisis.
- Know what behaviors the child is likely to have during and after a crisis, and how long it usually lasts.
- Ask the parent/doctor to describe, demonstrate, or train you in what you are to do during and following the crisis. Can you do it alone or should you get help?
- Prepare a list of typical classroom activities. Ask the child's doctor to check off activities that must be avoided and to describe modifications so the child can participate.
- Prepare other children for possible health crises by giving them a simple explanation when discussing other emergencies. Assure children that the staff will be able to handle all such situations.

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Pamphlets, booklets, and information sheets from agencies such as those listed in Figure 13–1 (p. 00).

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# Section G

## Managing illnesses

## Major concepts

- Your program must establish detailed policies about preventing and handling illness, including policies about attendance by sick children and staff.
- You can help to prevent the spread of disease by following appropriate precautions.
- Always consider all body secretions from children, adults, and animals to be POSSIBLY INFECTIOUS. These include stool, urine, blood, and secretions from the eyes, nose, throat, and skin. It is essential that you handle secretions carefully and clean up after them, even when this process is complicated.
- Despite your best efforts, children and adults will get sick. It is an expected part of life.
- Become familiar with signs and symptoms of illness. Encourage the parents of sick children to consult their health care provider for diagnosis, guidance, and care.
- Recognize that many illnesses DO NOT require exclusion. Most mildly ill children can safely attend if they feel well enough to come.
- Discuss options available for sick child care with parents at the time of enrollment. Be sure parents understand your policies about illness.
- Take active steps to educate staff, parents, and children about infectious illnesses, techniques to prevent their spread, and proper care of ill children.

# 17

# Infectious diseases

*Infectious diseases* are illnesses caused by infection with specific microorganisms—viruses, bacteria, fungi, or parasites. *Contagious or communicable diseases* are infectious diseases that can spread from one person to another.

Contagious diseases are one of the major problems that programs for young children must face. They cause discomfort, suffering, and absences for both children and staff. Occasionally, outbreaks of serious diseases may occur. If precautions are not taken, these serious diseases can spread quickly. The organisms that cause infections and contagious diseases are spread in four main ways:

- through the intestinal tract (via the stool)
- through the respiratory tract (via secretions or fluids from the eyes, nose, mouth, and lungs)
- through direct contact or touching
- through blood contact

This chapter will give you information about some of the contagious diseases that occur in early childhood programs. It will also discuss some common infectious diseases that are not contagious.

## The five commandments of infectious disease control

### 1. Prevent illness from spreading

The viruses and bacteria that cause infectious illnesses thrive in warm, wet, and stuffy environments. Conversely, these infectious agents have difficulty growing in clean, dry environments where there is lots of fresh air. To prevent the spread of illness, take these steps.

- Require correct handwashing procedures for adults and children (see Figure 4-1).
- Air out the rooms daily, and take the children outside often.
- Allow sufficient space between cots, cribs, and other furniture.
- Clean and sanitize areas for diapering, toileting, and eating as well as toys and furniture.
- To clean the environment, wash with soap and water and then use the bleach solution (see Figure 3-1 on p. 26).
- Remember than an ounce of prevention is worth a ton of cure.

Refer to Chapters 3 and 4 for detailed information on these topics.

Infectious illnesses are often spread by people who do not look or feel sick. Body secretions from these people get into the air, food, or onto surfaces where they are breathed, eaten, or touched by others. To control the spread of illness:

- teach children and staff how to catch a sneeze/cough correctly and how to dispose of tissues. Sneeze and cough toward the floor and away from other people. If you sneeze or cough into your hands or into a tissue, you will have to wash your hands!
- use running water, liquid soap, and individual paper towels for handwashing
- do not allow sharing of personal items.

### 2. Require certain immunizations

All children in your program must be immunized against the diseases of diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps, rubella, and Haemophilus influenzae (Hib) at appropriate ages unless they are exempted by your state laws for religious or medical reasons. **You must exclude children who are not properly immunized.**

Figure 17-1 shows childhood immunization schedules typically recommended by state public health departments. Ideally, these schedules would not be interrupted, and most children would com-

## Figure 17-1. Recommended schedule for active immunization of normal infants and children

| Recommended Age | Immunization(s)† | Comments |
|---|---|---|
| 2 mo. | DTP, OPV | Can be initiated as early as age 2 wk in areas of high endemicity or during epidemics |
| 4 mo. | DTP, OPV | 2-mo. interval desired for OPV to avoid interference from previous dose |
| 6 mo. | DTP | A third dose of OPV is not indicated in the U.S. but is desirable in geographic areas where polio is endemic |
| 15 mo. | Measles, mumps, rubella (MMR) | MMR preferred to individual vaccines; tuberculin testing may be done at the same visit (see Tuberculosis, page 431) |
| 18 mo. | DTP,‡§<br>OPV,‖<br>PRP-D | See footnotes |
| 4-6 yr | DTP,¶ OPV | At or before school entry |
| 14-16 yr | Td | Repeat every 10 yr throughout life |

***For all products used, consult manufacturer's package insert for instructions for storage, handling, dosage, and administration. Biologics prepared by different manufacturers may vary, and package inserts of the same manufacturer may change from time to time. Therefore, the physician should be aware of the contents of the current package insert.**

†DTP = diphtheria and tetanus toxoids with pertussis vaccine; OPV = oral poliovirus vaccine containing attenuated poliovirus types 1, 2, and 3; MMR = live measles, mumps, and rubella viruses in a combined vaccine (see text for discussion of single vaccines versus combination); PRP-D = *Haemophilus* b diphtheria toxoid conjugate vaccine; Td = adult tetanus toxoid (full dose) and diphtheria toxoid (reduced dose) for adult use.

**‡Should be given 6 to 12 months after the third dose.**

**§May be given simultaneously with MMR at age 15 months.**

**‖May be given simultaneously with MMR at 15 months of age or at any time between 12 and 24 months of age.**

**¶Up to the seventh birthday.**

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Figure 17-1 is reprinted with the permission of the American Academy of Pediatrics, Elk Grove Village, IL. The immunization schedules are from the *1988 Report of the Committee on Infectious Diseases*, ed. 21, AAP Committee on Infectious Diseases, 1988.

**Figure 17-1 cont. Recommended immunization schedules for children not immunized in first year of life**

| Recommended Time | Immunization(s) | Comments |
|---|---|---|
| | *Less than 7 years old* | |
| First visit | DTP, OPV, MMR | MMR if child ≥15 mo. old; tuberculin testing may be done at same visit (see Tuberculosis, page 431) |
| Interval after first visit:<br>1 mo. | PRP-D | For children aged 18-60 mo.; can be given concurrently with DTP (at separate sites) and other vaccines* |
| 2 mo. | DTP, OPV | |
| 4 mo. | DTP | A third dose of OPV is not indicated in the U.S. but is desirable in geographic areas where polio is endemic |
| 10-16 mo. | DTP, OPV | OPV is not given if third dose was given earlier |
| 4-6 yr. (at or before school entry) | DTP, OPV | DTP is not necessary if the fourth dose was given after the fourth birthday; OPV is not necessary if recommended OPV dose at 10-16 mo. following first visit was given after the fourth birthday |
| 10 yr later | Td | Repeat every 10 yr throughout life |
| | *7 Years Old and Older* | |
| First visit | Td, OPV, MMR | |
| Interval after first visit:<br>2 mo. | Td, OPV | |
| 8-14 mo. | Td, OPV | |
| 10 yr later | Td | Repeat every 10 yr throughout life |

*The initial three doses of DTP can be given at 1- to 2-month intervals; so, for the child in whom immunization is initiated at age 24 months or older, one visit could be eliminated by giving DTP, OPV, and MMR at the first visit; DTP and PRP-D at the second visit (1 month later); and DTP and OPV at the third visit (2 months after the first visit). Subsequent DTP and OPV 10 to 16 months after the first visit are still indicated. PRP-D, MMR, DTP, and OPV can be given simultaneously at separate sites if return of vaccine recipient for future immunizations is doubtful.

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Figure 17-1 is reprinted with the permission of the American Academy of Pediatrics, Elk Grove Village, IL. The immunization schedules are from the *1988 Report of the Committee on Infectious Diseases*, ed. 21, AAP Committee on Infectious Diseases, 1988.

plete their basic series of immunizations before the age of 2 years. In reality, however, appointments are missed and immunization schedules are disrupted. **Partial immunizations do not provide complete protection against disease**. For this reason, children with delayed or disrupted schedules must receive makeup immunizations according to the schedule for children not immunized in the first year of life.

To determine if a child is eligible to enter your program

- ask the parents to obtain a completed *Certificate of Immunization* (or a Physician's exam form, Figure 9-6) from their health care provider
- determine the child's age
- compare the immunization record with the recommended schedule in Figure 17-1 to see if all immunizations are up-to-date

Additional information on vaccine-preventable diseases is provided later in this chapter.

### 3. Report some illnesses

Every state has laws that require early childhood programs to report the occurrence of certain infectious diseases to the state department of public health. Because reportable diseases vary from state to state, you need to contact your local board of health for the current list. Be sure to include this list and a reporting procedure in your health policy. The purpose of reporting certain diseases is to enable your board of health and/or state department of public health to conduct investigations and take appropriate measures to prevent further spread of contagious diseases.

For some diseases, an individual occurrence must be reported (e.g., hepatitis and meningitis). Other diseases must be reported when an *outbreak* (involving three or more children or staff) occurs. Generally, an *epidemic* (a large number of cases in a short period of time) should be reported, even if the disease is not listed (flu, mononucleosis, conjunctivitis, or pneumonia).

Special reporting requirements usually exist for illnesses caused by consumption of contaminated food. If a number of your staff and children experience stomach cramps, vomiting, diarrhea, and/or dizziness, suspect food contamination and report the situation.

Finally, there are a number of diseases, such as Acquired Immune Deficiency Syndrome (AIDS) and sexually transmitted diseases (STDs), that must be reported to your state public health department. Physicians, health care providers, and laboratories who diagnose these diseases are generally the mandated reporters.

### 4. Exclude some children

**Contrary to popular belief and practice, only a *few* illnesses require exclusion of sick children to ensure protection of other children and staff.** Figure 17-2 lists seven of these illnesses and gives exclusion guidelines for each.

With most other illnesses, children have either **already exposed** others before becoming obviously ill (e.g., colds) or **are not contagious at some point after beginning treatment** (e.g., strep throat, conjunctivitis, impetigo, tuberculosis, ringworm, parasites, head lice, and scabies). The waiting periods required after the onset of treatment vary with the disease (see specific disease descriptions later in this chapter).

In some cases, children may attend **ONLY IF SPECIAL PRECAUTIONS ARE TAKEN** (see specific disease descriptions). Children who are carriers of viral illnesses such as CMV (cytomegalovirus) and herpes **can and should be admitted**.

When your program allows mildly ill children to attend, consider these steps to better meet their needs.

- Maintain a small room or area where they can spend a quiet day.
- If the child's illness might worsen with outdoor play, assign one staff person to remain with this child when others go outside.

Refer to Chapters 18 and 19 for additional information.

### 5. Be prepared!

**Don't wait until an epidemic hits!** Do some advance planning and take these steps.

- Insist that staff learn and follow handwashing, cleaning, and ventilation guidelines.
- Choose a health consultant who knows about infectious disease in early childhood settings.
- Have the phone numbers of your local board of health and the state department of public health posted and readily available.
- Make sure children's immunizations are up to date before you admit them. Check immunization status for all children at least once a year.
- Make sure parents recognize their responsibilities for taking their sick child to the health care provider and for reporting a contagious illness to you. Do not expect parents will read all the mate-

rial you give them. Review health procedures orally at enrollment and send a letter annually to all parents. Describe each of your health policies and ask them to
—call or write when their child is ill and tell you the problem
—call or write if a health care provider makes a specific diagnosis (such as strep throat)
—tell you **immediately** if Hib or meningococcal disease is diagnosed
—keep their child home if she or he has an excludable illness
—call and discuss with you whether or not their child should attend when she or he has mild diarrhea or an infectious disease that has been treated
—inform you of any changes in emergency numbers where they can be reached each day

- **Be watchful!** Learn to look for signs of infectious disease. Call or send a note home if you suspect a problem.
- Inform staff and parents of contagious diseases that occur in your program.

## Diseases spread through the intestinal tract—Infectious diarrheal diseases, pinworms, hepatitis A

These diseases are caused by germs (viruses, bacteria, or parasites) that multiply in the intestines and are passed out of the body in the stool. Anyone can catch these diseases, and they can be caught repeatedly (except for hepatitis A). Programs that care for children in diapers are especially at risk, because staff and children may get stool on their hands frequently. When stool containing these germs gets on hands or objects, it can inadvertently be swallowed. Swallowing as few as 10 Shigella or Giardia germs can cause an intestinal tract illness. Salmonella and Campylobacter germs must be swallowed in larger quantities to cause illness. Children or staff with disease-causing germs in their stool may not act or feel sick or have diarrhea. Laboratory tests are the only way to tell if a particular stool has these germs in it. These tests are sometimes done as part of an effort to control an outbreak of disease.

If cases of infectious diarrhea, pinworms, or hepatitis A occur, notify parents, staff, and your health consultant. Also, report both infectious diarrhea and hepatitis A to your local board of health.

### How to stop spread of intestinal tract diseases

Because children and staff who have intestinal tract diseases don't always feel sick or have diarrhea, the best method for preventing spread of these diseases is to have a constant prevention program in place. Take these **special precautions.**

Subjects & Predicates

*Children and staff sometimes have an infectious disease without feeling sick. The best way to prevent the spread of disease is to have a constant prevention program in place.*

## Figure 17-2. Exclusion guidelines

Staff **must** exclude children with these illnesses or symptoms.

| **Illness/symptom** | **Exclude until** |
|---|---|
| • Meningococcal disease (Neisseria meningitides) | well **and also** completed 2-day course of Rifampin |
| • Hib disease (Haemophilus influenzae) | Well **and also** completed 4-day course of Rifampin |
| • diarrhea and illness (such as fever and/or vomiting) | Diarrhea gone (or clearance from health consultant) |
| • diarrhea (if the program cannot assure special precautions) | diarrhea gone (or clearance from health consultant) |
| • chicken pox | 1 week from onset, or skin lesions (blisters) scabbed over. Children with chicken pox who were in contact with their group in the few days before developing the chicken pox rash need not be excluded if they are well enough to fully participate. Chicken pox is so contagious that exclusion after exposure occurs is useless. |
| • hepatitis A | 1 week after illness started AND fever gone |
| • AIDS (or HIV infection) | 4 years old. Children from birth through age 3 years, who have clinical AIDS, **should not attend a group setting** because of their increased susceptibility to infection.<br>Children ages 4 and 5 years and the developmentally disabled who have clinical AIDS or evidence of infection with HIV **may attend a group setting UNLESS** they have skin eruptions or weeping lesions that cannot be covered, or are likely to be bitten by the other children. (In either of these cases, the child's physician and the program should collaborate to decide about the appropriateness of the child's attendance.<br>Siblings of children with clinical AIDS or evidence of infection with HIV virus **may attend group programs without any restrictions.** |

**Other diseases may have waiting periods after treatment begins or may require special precautions.**

- **Insist on frequent, thorough handwashing for both staff and children** (see Figure 4-1).
- **Insist on general cleanliness.** (See Chapters 3 and 5 for detailed information on cleaning, sanitizing, and diapering.)
- **Separate children into three groups whenever possible:** infants, diapered children, and toilet-trained children. Try to have a staff member work with only one group to avoid carrying germs from group to group. (Note: Because this type of grouping may not meet administrative or child development needs, directors will have to consider a variety of factors when grouping children and assigning staff. If mixing staff and child groups must occur, minimize the numbers of people involved and emphasize careful handwashing for all concerned.)

### Infectious diarrheal diseases—Giardia, Shigella, Salmonella, and Campylobacter

People have diarrhea when they have **more stools than normal** for them and the stools are **loose, watery, and unformed.** (Exception: Breast-fed babies may have stools that are normally unformed.)

**Infectious diarrhea** is caused by viruses, parasites, or bacteria and can spread quickly from person to person. **Non-infectious** diarrhea can be caused by toxins (e.g., food poisoning), chronic diseases (e.g., cystic fibrosis), or antibiotics (e.g., ampicillin) and does not spread from person to person.

This section gives detailed information on infectious diarrhea caused by Giardia, Shigella, Salmonella, and Campylobacter. Other infectious diarrheal agents including parasites (e.g., crypotosporidiosis, amoeba), other bacteria (e.g., Yersina), and other viruses (e.g., Rotavirus) are not discussed in detail, but the general stop-spread instructions in this section apply to all of these diseases.

#### Exclusion guidelines

- When children or staff have diarrhea **and** fever or diarrhea that cannot be contained by diapers or routine toileting procedures, or vomiting (or have severe or bloody diarrhea) . . . **exclude** until treated and fever and diarrhea are gone.
- When children or staff have mild diarrhea but are not sick . . . **take special precautions or exclude.** (Also make sure they receive appropriate management with fluids and diet.)
- When children or staff are found to have infectious diarrheal disease agents in their stool (positive stool cultures) but have no diarrhea or illness symptoms . . . **take special precautions** but do not exclude them. (Also make sure they receive appropriate management.)
- When staff who normally prepare food or feed children have positive stool cultures . . . **DO NOT ALLOW THEM TO PREPARE FOOD OR FEED CHILDREN** until they have two negative stool cultures taken 48 hours apart. (Cultures should not be taken until 48 hours after medication is completed if antibiotics are used.)

#### Special precautions

- **strictly enforce all** handwashing, diapering, toileting, and cleaning procedures; **and**
- set up a separate room or area where added staff attention is provided

**Return guidelines.** Excluded children and staff may come back after treatment and when severe diarrhea is gone. **Continue to take special precautions** until all those with **positive** stool cultures have had **two negative** stool cultures after treatment.

#### How to stop spread of infectious diarrheal diseases

- Follow handwashing and cleanliness procedures.
- Keep track of the number of cases of diarrhea and take these steps:
  —If **one** person has diarrhea, use **special precautions** or **exclude** her or him.
  —If **two or three** people have diarrhea, use **special precautions** or **exclude** them. Ask parents to have stool samples cultured and examined for ova (eggs) and parasites by health care providers. Inform staff and parents (see Figure 17-3). Talk to your health consultant.
  —If **more than three** people have diarrhea, do all of the above **AND** call your local board of health for help.

#### Giardia lamblia

*What is it?* Giardia lamblia is an intestinal parasite in the small bowel that may cause chronic diarrhea, abdominal cramping, bloating, pale and foul-smelling stools, weight loss, and fatigue. Although many people who have Giardia do not experience these symptoms, they are still passing Giardia cysts in their stools and are infectious if untreated.

*Who gets it and how?* Giardia is very common—between 3 and 20% of all people have it. It spreads quickly in programs for young children, especially when children in diapers are present. The microscopic Giardia cysts are spread by contact with stool, drinking untreated water, and sometimes by drinking water in areas where the water supplies are contaminated.

*How is it diagnosed?* Stool must be examined under a microscope to identify Giardia cysts. Because Giardia is present in stools only intermittently, several examinations must be made.

*How is it treated?* Most health providers agree that persons with Giardia who are ill and/or have diarrhea should receive medication. Your local board of health and health consultant will help the program decide if a person who has no symptoms should be treated.

*When should people with Giardia be excluded and allowed to return?* See infectious diarrhea exclusion and return guidelines.

*Where to report it?* Notify parents and staff if a child or staff member is diagnosed with Giardia (see Figure 17-3). Also notify your health consultant and your local board of health. Make family and household members in contact with a person with Giardia diarrhea aware of their possible exposure to this parasite, especially if they are involved in food handling or preparation. If they develop diarrhea, they should immediately see their health care provider and get stool tests.

### Shigella

*What is it?* Shigella is a family of bacteria that causes symptoms ranging from mild diarrhea to diarrhea with blood and mucus. In severe cases, it can cause dehydration, fever, severe cramps, vomiting, headache, and even convulsions (in young children).

Illness generally begins 1 to 4 days after swallowing the bacteria. Although symptoms usually disappear without treatment after 4 to 7 days, bacteria may still be passed out in the stool for several more weeks.

*Who gets it and how?* Shigella is most common in children younger than 5 and can be a significant problem in groups. It is spread when diarrheal stools get on hands or objects and then onto other children's hands and mouths. It can also be spread through stool-contaminated food, drink, or water. As few as 10 swallowed bacteria can cause a Shigella infection.

*How is it diagnosed?* A test called a stool culture must be performed. Up to 72 hours may be required to grow the bacteria from a stool sample.

*How is it treated?* Children and adults who have Shigella in their stool should receive antibiotic medication that shortens both duration of the illness and length of time that bacteria are passed with the stools.

*When should people with Shigella be excluded and allowed to return?* See infectious diarrhea exclusion and return guidelines.

*Where to report it?* Notify parents and staff if a child or staff member is diagnosed with Shigella (see Figure 17-3). Also notify your health consultant and your local board of health. Family and household members in contact with a person with Shigella diarrhea should be made aware of their possible exposure to the bacteria, especially if they are involved in food handling or preparation. If they develop diarrhea, they should immediately see their health care provider and get a stool culture.

### Salmonella

*What is it?* Salmonella is a family of bacteria that causes diarrhea accompanied by stomach cramps, pain, and fever. These symptoms usually develop 1 or 2 days after bacteria are swallowed and may disappear untreated in 2 to 5 days. Bacteria may be present in the stool for several weeks after the diarrhea is gone. Very rarely, Salmonella causes a bloodstream infection or infects a part of the body (such as a joint). People who do not have diarrhea but are passing Salmonella bacteria in their stools are called carriers.

*Who gets it and how?* Children younger than 5 and adults older than 70 get it most often. Salmonella can cause severe infections in these people as well as those with underlying diseases, such as sickle-cell anemia or cancer. In group programs for children, Salmonella is usually spread from stool to mouth. Children pass it easily when stool goes from one child's hand to an object or directly to another child's hands. A very large number of Salmonella bacteria must be swallowed to cause an illness.

Salmonella can also be spread by contaminated food or drink and is sometimes found on eggshells and in uncooked meat or poultry. Therefore thoroughly cook all foods, especially beef and poultry products, and refrigerate any leftovers. Do not use unpasteurized (raw) milk or raw eggs because they are frequently contaminated with Salmonella bacteria.

Pet turtles can be carriers of Salmonella.

Marilyn L. Nolt

*Campylobacter, a family of bacteria, sometimes spread through puppies and kittens. The bacteria can also be spread through poorly cooked poultry, unpasteurized milk, and contaminated water.*

*How is it diagnosed?* A stool culture must be performed. Up to 72 hours may be required to grow bacteria from a stool sample.

*How is it treated?* Medication is not usually given for Salmonella. In fact, medication can actually lengthen the time the germ is found in the stool.

*When should people with Salmonella be excluded and allowed to return?* See infectious diarrhea exclusion and return guidelines.

*Where to report it?* Notify parents and staff if a child or staff member is diagnosed with Salmonella (see Figure 17-3). Notify your health consultant and your local board of health. Make family and household members in contact with a person with Salmonella diarrhea aware of their possible exposure to the bacteria, especially if the people are involved in food handling or preparation. If they develop diarrhea, they should immediately see their health care provider and get a stool culture.

**Campylobacter**

*What is it?* Campylobacter is a family of bacteria that can cause diarrhea with fever, stomach cramps, and vomiting in adults and children. The diarrhea may be severe and bloody. Campylobacter infections occur 2 to 10 days after the bacteria are swallowed. Usually symptoms disappear without treatment in 1 to 10 days, but there may still be bacteria in the stools for several weeks if treatment is not received.

*Who gets it and how?* Campylobacter are spread stool to mouth. A person must swallow a large number of these bacteria to become ill, so Campylobacter is not as easy to catch as Giardia or Shigella.

**The bacteria can also be spread through food (especially poorly cooked poultry products), unpasteurized milk, and contaminated water. When puppies and kittens have this germ in their stools, they may infect people.**

*How is it diagnosed?* A stool culture must be performed. Up to 72 hours may be required to grow bacteria from a stool sample.

*How is it treated?* No treatment is necessary for mild diarrhea. If the illness is severe, antibiotic therapy will help. Therefore, adults and children with Campylobacter in their stools should receive medication. This will reduce the chance of spread to others.

*When should people with Campylobacter be excluded and allowed to return?* See infectious diarrhea exclusion and return guidelines.

*Where to report it?* You must report cases of Campylobacter to parents and staff (see Figure 17-3). Also notify your health consultant and your local board of health. Family and household members in contact with a person with Campylobacter diarrhea should be made aware of their possible exposure to the bacteria, especially if the people are involved in food handling or preparation. If they develop diarrhea, they should immediately see their health care provider and get a stool culture.

## Figure 17-3. Letter to parents about diarrheal diseases

Dear parent or guardian:

_____ A child in our program has a diarrheal disease.

_____ Your child may have a diarrheal disease.

### Please take the following precautions:

1. Watch your child and members of your family to see if they develop diarrhea, stomach cramps, gas, and/or nausea.
2. If your child develops severe diarrhea, diarrhea with fever or vomiting, or diarrhea with blood or mucus, **do not send your child to the program.**
3. If your child develops mild diarrhea, **please call us** to discuss whether attendance is recommended.
4. In either case, we may ask your health care provider to do the tests for bacteria and parasites in the stool. We may ask you to obtain tests for your child and for other family members who develop diarrhea.
5. Be sure to remind your health provider that your child is in a child care program so the implications for the child's management and the needs of the other children can be considered. **If your child's test is positive,** keep your child home until any serious diarrhea or illness is over **and** our program's health consultant determines whether any special precautions are required for your child to return.
6. Keep us informed about how your child is doing and about any positive tests or treatment.

### Information about diarrheal diseases

*What are they?* Diarrheal diseases are caused by germs (bacteria, parasites, or viruses) that multiply in the intestines and are passed out of the body in the stool. Anyone can get diarrheal diseases and they can be caught repeatedly. People with these germs in their stool may not actually have diarrhea or feel sick. Laboratory tests are the only way to tell if a particular stool contains germs.

Five diarrheal diseases commonly found in early childhood programs are listed on the next page, along with the symptoms they typically cause.

## Figure 17-3 cont. Letter to parents about diarrheal diseases

| Name | Caused by | Symptoms |
|---|---|---|
| **Rotavirus** | A virus | Most cases of winter diarrhea in children younger than 2 years, usually preceded or accompanied by vomiting and low grade fever. May also have runny nose and cough. |
| **Giardia lamblia** | A microscopic parasite | Mild diarrhea, bad-smelling diarrhea, gas, stomach cramps, nausea, lack of appetite, and/or possible weight loss |
| **Shigella** | Microscopic bacteria | Mild diarrhea, fever, stomach pain, and/or diarrhea with blood or mucus |
| **Salmonella** | Microscopic bacteria | Mild to severe diarrhea, fever, and/or painful stomach cramps |
| **Campylobacter** | Microscopic bacteria | Mild to severe or bloody diarrhea, fever, stomach cramps, and/or vomiting |

*How do you catch diarrheal diseases?* When people do not wash their hands well after going to the bathroom, changing diapers, or helping a child go to the bathroom, microscopic diarrheal germs stay on their hands and the children's hands. The germs can then spread to food or drink or to objects and, eventually, to other people's hands and mouths. The germs are then swallowed by the other people, multiply in their intestines, and cause an infection.

Obviously diarrheal diseases can spread easily among young children who normally get their hands into everything and may not wash their hands well.

*How do you know if you have a diarrheal disease?* Some of these diseases can be diagnosed by examining the stool under a microscope, some by growing the germs in the laboratory, others by special chemical tests. Since the germs are usually passed in the stools off and on, stool samples taken on several days may need to be examined.

*How can you stop the spread of diarrheal diseases in your household?*

- **Be sure everyone thoroughly washes their hands after using the bathroom or helping a baby or child with diapers or toileting and before preparing or eating food.** Babies and children need to have their hands washed, too, at these times. Ask us if you are unsure of the steps required for proper handwashing.
- If someone in your family develops diarrhea, ask your health care provider to consider doing a test for germs in the stool. **This is critical for family or household members who handle or prepare food as a job.**
- Medication may be recommended for children and adults who have diarrheal diseases. Your health care provider will decide about treatment for your child and/or other family members.

### Pinworms

*What are they?* Pinworms are tiny worms that infect people (but not animals) and live in the lower intestine. The female worms (resembling short, white threads less than 1/2" long) come out through the anus at night and lay their microscopic eggs around the opening. In some people, this causes intense itching; in others, nothing. Pinworms do not cause teeth grinding or bed-wetting and are not dangerous, just irritating.

*Who gets them and how?* It is estimated that 5 to 15% of people in the United States have pinworms (the rate is higher in other countries). Children frequently have pinworms, and members of an infected child's household can be infected and reinfect a treated child. When children or adults scratch their itchy bottoms, the microscopic eggs can come off onto the fingers or under the fingernails. These people may put their fingers into someone's mouth or food, and eggs may be swallowed that will hatch into worms in the intestines. People can also keep reinfecting themselves by swallowing eggs that are on their own hands. Pinworms can also be indirectly spread through contact with clothing or bedding that has been contaminated with eggs.

*How are they diagnosed?* The worms crawl out at night to lay their eggs while the child lies still and sleeps. The easiest way to find them is to inspect a 1" circular area around the child's anus about 1 hour after the child has gone to sleep. By spreading the buttocks and looking with a flashlight, a parent can see the worms crawling toward the opening of the bowel. A health care provider can make the diagnosis by asking the parent to apply the sticky side of transparent tape around the anal area so any eggs on the skin will stick to it. This is best done first thing in the morning before bathing. The tape is then placed sticky side down on a slide and examined under a microscope to see if there are any eggs.

*How are they treated?* Several medicines are available for treatment of this infection. Often the health care provider will treat the whole family if one person in the home is infected and may repeat treatment 2 weeks later.

*When should people with pinworms be excluded and allowed to return?* Children and adults do not need to be excluded.

*Where to report it?* Notify parents and staff so they may watch for symptoms in themselves and/or their children (see Figure 17-4).

### Special stop-spread information

In addition to following handwashing and cleanliness procedures, staff should be sure each child has her or his own crib or mat with its own sheets. Each child's clothing should be stored seprately in plastic bags and sent home for laundering.

### Hepatitis A

*What is it?* Hepatitis A is an infection of the liver caused by the hepatitis A virus. Although the virus causes a total body illness, it is spread through the intestines and stools. The illness often occurs from 2 to 8 weeks after the virus is swallowed. Adults who have hepatitis A often suffer from tiredness, loss of appetite, nausea, fever, and jaundice (yellowing of the skin and whites of the eyes as well as dark brown urine). These symptoms usually last from 1 to 2 weeks, although some adults may be sick for several months. Most young children who catch the virus have only a mild flu-like illness without jaundice, or no symptoms at all.

*Who gets it and how?* Anyone can get this infection, that spreads quickly in groups of children who do not yet use the toilet and who cannot wash their own hands well. Because most young children with hepatitis A do not become ill, often the first sign of the infection is a jaundiced parent or staff member. Hepatitis A virus is passed out of the body in the stool and is spread by the stool to mouth method. Contact with stool-contaminated food, drink, or environmental surfaces can also spread the infection. The virus is **not found** in urine, saliva, or other body fluids, and is **found only briefly** in the blood. A person is most contagious during the 2 weeks before the illness begins, when there are the most virus particles in the stool. Usually, within a week after the illness starts, the virus disappears from the stool.

*How is it diagnosed?* Hepatitis A is diagnosed by a blood test that indicates if a person has ever had the infection, regardless of the presence of symptoms.

*How is it treated?* There is no treatment that **cures** hepatitis A. However, because the incubation period is so long, the illness can be prevented by giving persons a protective shot of immunoglobulin within 2 weeks of their exposure to the virus.

*When should people with hepatitis A be excluded and allowed to return?* Exclude these people:

## Figure 17-4. Letter to parents about pinworms

Dear parent or guardian:

_____ A child in our program has pinworms.

_____ Your child may have pinworms.

### Please take these precautions:

1. Check your child for pinworms, using the information given below.
2. If you think your child may have pinworms, call your health care provider for instructions.
3. If your child does have pinworms, please tell us.
4. **Remember to wash your hands and your child's hands carefully after going to the bathroom and BEFORE eating or preparing food.** This will help prevent spread of pinworms to family members.

### Information about pinworms

*What are they?* Pinworms are small, white, threadlike worms that live in the large intestine and only infect people. The female worms crawl out through the anus at night and lay eggs on the skin around the opening. This can cause intense itching in this area. It does **not** cause teeth grinding or bed-wetting. It is not a dangerous disease, just a very irritating one.

*Who gets them and how?* It is estimated that 5 to 15% of people in the United States have pinworms. Children frequently have pinworms, and members of an infected child's family can be infected and then reinfect a treated child. When children scratch their bottoms, the microscopic eggs can come off onto their fingers or under their fingernails. If they put their fingers into someone's mouth or food, the eggs may be swallowed, and then hatch into worms in their intestines. Pinworms can also be spread through contact with clothing or bedding that has been contaminated with eggs.

*What do you do about pinworms?* Your health care provider will ask you to place sticky tape on your child's bottom first thing in the morning and will then look at the tape under the microscope. If there are pinworm eggs on the tape, she or he will give your child a medication to cure the infection. Your whole family may be treated, too, because other people in households are often infected as well but are not aware of it.

- those who are jaundiced
- those exposed to hepatitis A virus in the past 2 weeks, unless they receive immunoglobulin. If they do not receive immunoglobulin, exclude them for 6 weeks after the last case occurs.

People who are sick with hepatitis A can return to the program 1 week after the illness started AND when their fever is gone.

*Where to report it?* Notify parents and staff (see Figure 17-5). Also notify your health consultant and your local board of health.

### Special stop-spread information

- Strictly enforce handwashing and cleanliness rules.
- Make sure all parents and staff notify the program if any person in their household is diagnosed with hepatitis A.
- If a household member comes down with hepatitis A, the child or staff member living there should get a blood test to see if she or he has the illness as well. If the test is negative, she or he should receive a shot of immunoglobulin. If the test is positive for hepatitis A, exclude as described above.
- You may have an **outbreak** if, in the course of 1 month
  —one child in the program **OR** one staff person develops hepatitis A (diagnosed by blood test or illness)
  or
  —people with hepatitis A are found in two or more households with children in group programs or staff
- At this point, call your local board of health. They will help you investigate the possible outbreak and will also request that exposed children and adults be given the immunoglobulin shot by their own health care providers.
- When a case of hepatitis A occurs in a program that has children in diapers, all children and staff should get the immunoglobulin shot. If there are no children in diapers, only staff and children in the infected person's class need to get the shot.
- If an outbreak of hepatitis A occurs in a program, all children enrolled or staff hired during the 6 weeks following the last case of hepatitis A should receive immunoglobulin before coming to the program to prevent further spread of the disease.

## Diseases spread through the respiratory tract

Respiratory tract diseases are all spread through microscopic droplets of infectious nose, eye, or throat secretions most of which are shared via hand contact with infected secretions and subsequent contact with surfaces that uninfected people touch to pick up the germs. Whether or not true airborne transmission accounts for much if any disease spread is unclear. Respiratory tract diseases may be mild (viral colds and strep throat) or life threatening (bacterial meningitis). Some of these diseases are common in children (Hib-Haemophilus influenzae type b) whereas others like the viral cold affect all ages fairly equally.

When an infected person talks, coughs, sneezes, or blows the nose, infectious droplets get on objects such as hands, toys, or food, and can be touched, mouthed, or eaten by others. When the germs in these infected droplets come in contact with the nose, eyes, or mouth of an uninfected person, they can multiply in the nose and throat and cause infection. Young children often fail to wash their hands after touching their noses or eyes and are in constant physical/oral contact with objects around them. Adults and children often put their hands around their eyes, mouth, and nose. As a result, respiratory tract diseases spread easily in a group setting.

### Stop-spread methods for respiratory tract diseases

Handwashing and cleanliness are essential to stop the spread of all respiratory tract diseases.

- Ensure that staff and children thoroughly wash their hands after wiping or blowing noses; after contact with any nose, throat, or eye secretions; and before preparing or eating food.
- Do not allow food to be shared.
- Wash and sanitize any mouthed toys and frequently used surfaces (such as tables) at least once daily.
- Wash eating utensils carefully in hot, soapy water; then sanitize and air dry. Use a dishwasher whenever possible.
- Use disposable cups whenever possible; when reusable cups must be used, wash them in hot, soapy water then rinse them in a sanitizing solution and allow them to air dry after each use. Label each child's cup.
- Air out the rooms daily, even in winter.

## Figure 17-5. Letter to parents about hepatitis A

Dear parent or guardian:

A child or staff member in our program has been diagnosed with a viral infection called hepatitis A, and your child may have been exposed.

### Information about hepatitis A

*What is it?* Hepatitis A is an infection of the liver caused by a virus. It can cause tiredness, fever, lack of appetite, nausea, and jaundice (yellowing of the skin and whites of the eyes, with darkening of the urine). The illness usually lasts 1 to 2 weeks. Young children do not usually become jaundiced, however, and may have only a flu-like illness, or nothing at all.

*How do you get it?* The virus lives in the intestines and is passed out of the body in the stool. The virus is microscopic, so you cannot see it. If people do not wash their hands well after toileting a child or themselves, or do not wash the child's hands, the virus can be spread to other people, food, drink, or other things. The germs can then be swallowed by another person, multiply in the intestines, and cause illness 2 to 8 weeks later. If a person may have swallowed some germs, the illness may be prevented by a shot of immunoglobulin.

*How is it diagnosed?* Hepatitis A is diagnosed by a blood test.

*What should you do about hepatitis A?*

1. Be sure all members of your household thoroughly wash their hands **after** going to the toilet, helping a child go to the toilet, or changing a diaper. They must wash the children's hands, too. **These are the most important things to do!** Hands should also be washed before touching food, eating, or feeding.

2. If anyone in your household develops signs of hepatitis A, ask your health care provider to do a blood test. Tell us if it is positive.

3. Do any of the checked items:

_____ Ask your health care provider to give your child a shot of immunoglobulin. The immunoglobulin may be available free of charge to your physician from your state or local health department.

_____ Ask your health care provider to give immunoglobulin shots to the other people in your household.

- Teach children and staff to cough or sneeze toward the floor or to one side. If they sneeze or cough into a hand or tissue, they must properly dispose of the tissue and wash their hands.
- Wipe runny noses and eyes promptly, and wash hands afterwards.
- Use disposable towels and tissues.
- Dispose of towels or tissues contaminated with nose, throat, or eye secretions in a step can with a plastic liner. Keep them away from food and materials.

### Common respiratory tract illnesses—Respiratory viral illnesses (colds, influenza, and roseola)

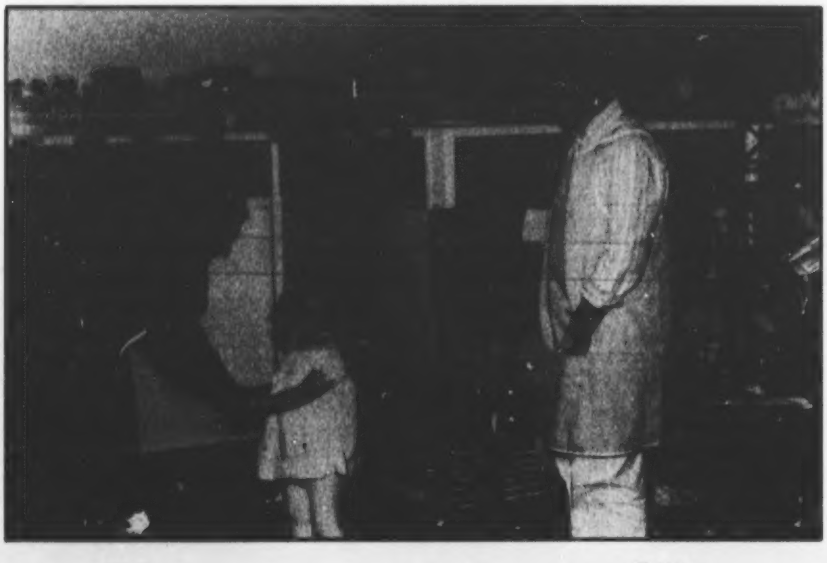
*What are they?* **Colds** are mild infections of the nose and throat that are caused by many different viruses. The most common of these is a rhinovirus (nose virus). Cold symptoms include stuffy or runny nose, sore throat, coughing or sneezing, watery eyes, fluid in the ears, fever, and general fatigue. **Influenza** is also caused by viruses (Influenza A or B) and has symptoms of high fever, chills, congestion, coughing, and muscle aches. Most people who get influenza feel too ill to attend a group program. **Roseola** is another viral infection that starts with a high fever (103°F. or above) and lasts 3 to 4 days. Soon after the fever ends, the infected person develops a lace-like rash over the whole body, but begins to feel well again.

*Who gets them and how?* Young children usually catch many colds each year, and will catch even more if they have young siblings or attend a group program. **The virus concentration in respiratory secretions is usually highest 2 to 3 days before a person develops symptoms of illness.** Viruses continue to be present in respiratory secretions for 2 to 3 days after symptoms begin. As a result, infected children and staff have already spread viruses before they begin to feel ill. In fact, children and adults often have mild colds that may go undetected but still cause them to be contagious.

*How are they diagnosed?* These viral illnesses are usually diagnosed by their symptoms. The viruses can be grown in special cultures in laboratories, but this process is time consuming, expensive, and usually unnecessary.

*How are they treated?* No medicines or treatments can *cure* these viral illnesses. Health care providers usually suggest rest and plenty of fluids. Sometimes a viral infection can be complicated by secondary **bacterial** infection (e.g., ear or sinus infection, pneumonia). A person with high fever, persistent cough, or earache should be evaluated by a health care provider to see if there is a bacterial infection that requires antibiotic treatment. Aspirin (or products containing salicylate) should **NOT** be used for fever control if influenza or chicken pox is suspected because of the rare association between Reye's syndrome (vomiting, liver problems, and/or coma) and influenza and chicken pox.

*When should people with viral illnesses be excluded?* There is no need to exclude these children and staff, as long as they feel well enough to attend.



*Many illnesses do not require exclusion from group programs. Most mildly ill children can safely attend if they feel well enough to come.*

Subjects & Predicates

### Stop-spread methods for common respiratory tract illnesses

Follow the stop-spread methods for respiratory tract diseases.

### Common respiratory tract illnesses—Group A Streptococcal infections (Strep throat, scarlet fever, and impetigo)

*What are they?* A variety of infections, including strep throat, scarlet fever, and impetigo, are caused by Group A Streptococci bacteria (see p. 255 for a discussion of impetigo).

**Strep throat** infections are characterized by a very red, painful throat often accompanied by fever, tender and swollen lymph nodes (called glands by many people), headache, and stomachache. Sometimes a strep throat will be accompanied by coughing or less often a runny nose. The vast majority of sore throats in children and adults are caused by cold viruses, **not** strep bacteria.

**Scarlet fever** is a type of Streptococcal infection characterized by a skin rash. The rash usually consists of fine, red bumps that feel sandpapery and usually appear on the neck, chest, groin, and/or inner surface of the knees, thighs, and elbows. It may last only a few hours. Other scarlet fever symptoms include flushed cheeks, paleness around the mouth, and a red tongue that resembles the surface of a strawberry. Scarlet fever is no more serious than strep throat.

**Rheumatic fever** (abnormalities of the heart valves and inflammation of the joints) can develop 5 to 6 weeks after the occurrence of any type of strep infection that goes untreated. In rare instances, **kidney disease** can also follow an untreated strep infection. Therefore, it is very important that all cases of suspected strep infections be referred to health care providers for treatment. People with persistent sore throats without a runny nose deserve a throat culture.

*Who gets them and how?* Strep throats occur most frequently in children older than 3 (and in adults), during the colder months, and in crowded situations. New information suggests that spread may occur among younger children in child care as in older children in schools. If one person in a family gets strep throat, other family members may also get it. The Group A Streptococci are transmitted from one person to another through microscopic respiratory secretions. The incubation period lasts 2 to 5 days. People with strep throat are generally not infectious, however, until their symptoms appear. They continue to be infectious until they have received treatment for a day or so.

*How are strep infections diagnosed?* Throat cultures (that take 24 to 48 hours to complete) are the best method to diagnose strep infections. Several recently developed tests can take less time, but their accuracy is still being evaluated.

*How are they treated?* Strep infections are usually treated with an oral antibiotic for 10 days, starting either at the onset of symptoms or after throat culture results are received. A single, long-lasting injection may also be used to treat strep.

*When should people be excluded and allowed to return?*

- People who are only mildly ill can continue to attend while awaiting the results of a strep culture, **IF** the doctor has not begun antibiotic treatment. (If the culture proves to be positive, send them home.)
- People who have a positive strep culture should stay home until after they have had **at least** 24 hours of antibiotic medicine. Make sure that every dose of the antibiotic is taken for the next 10 days.

*Where to report strep infections?* Notify all parents if a child has a strep infection (see Figure 17-6).

### Special stop-spread information for strep infections

- Follow the stop-spread methods for respiratory tract diseases.
- If there is a case of strep in the program, send children or staff with sore throats to their health care providers for throat cultures.
- Be alert to an outbreak. If there are three or more cases and/or any associated rheumatic fever or kidney disease, talk to your health consultant about having all children and staff cultured.

### Common respiratory tract illnesses—chicken pox and shingles

*What are they?* **Chicken pox** is a very contagious disease caused by the varicella-zoster virus. It usually begins with a mild fever, symptoms of a cold, and an itchy rash. The rash appears with small, red bumps on the stomach or back and spreads to the face and limbs. These bumps rapidly become blistered and oozy, then crust over. People may have only a few bumps or may be totally covered.

Once a person has been infected with the varicella-zoster virus and gets chicken pox, the

## Figure 17-6. Letter to parents about strep throat

Dear parent or guardian:

_____ A child in the program has strep throat.

_____ Your child may have strep throat.

### Please take these precautions:

1. Watch your child for signs of a sore throat and other signs of strep (headache, fever, stomachache, swollen and tender neck glands).
2. If your child develops a sore throat and any of these other signs, please see your health care provider, tell her or him that another child in the program has strep, and ask to have your child tested for strep throat. In 1 to 2 days, you will have the results of the culture. If strep is found, your child will receive treatment.

### Information about strep throat

*What is strep throat?* **Strep throat** is a sore throat caused by **streptococcus bacteria** that are passed around through nose and mouth secretions. It is very common in children. Most sore throats, however, are caused by **viruses** and are not treated with antibiotics.

*Why is it important that your child receive treatment?* There are three main reasons.

1. **Treatment reduces spread.** If not treated or not treated long enough, your child may continue to spread the infection to other members of your family or to other children.
2. **Treatment with antibiotics can usually prevent rheumatic fever.** Rarely, some children with strep throat later develop rheumatic fever—abnormalities of the heart valves and inflammation of the joints.
3. **Treatment will also prevent other rare, but possibly dangerous, complications.**

*When can your child come back to the program?* Your child can return after taking medicine for **at least 24 hours.**

*What should you do to prevent the spread of strep throat?*

1. Thoroughly wash your hands and your child's hands after wiping noses and before eating or preparing food.
2. Wash dishes carefully in hot, soapy water or a dishwasher.
3. Do not allow children to share cups, spoons, or toys that are put into the mouth.
4. Do not allow sharing of food.

virus remains (without symptoms) in the body's nerve cells. In some people the virus becomes active again at a later time and is called shingles or zoster. With shingles a red, painful, itchy, blistery rash appears, usually in a line along one side of the body. There is no fever. The virus shed in the blisters of the rash can cause chicken pox in a person who has not had it, if that person has direct contact with the infected shingles blisters.

*Who gets them and how?* Anyone who is exposed to the varicella-zoster virus and has not had chicken pox before will almost certainly get it. If you had chicken pox once, you cannot get it again. Chicken pox is most common in school-age children whereas shingles is most common in adults. Chicken pox is generally not considered to be a serious disease in otherwise healthy people. However, adults and people on medicines that suppress the immune system (immunosuppressor medicines) (e.g., persons with cancer) tend to experience a more severe disease from this virus.

People with chicken pox are contagious from 2 days **before** the rash appears until the last blister has developed crusts. The disease is spread by close contact (sharing breathing space or direct touching) with infected secretions from the nose, throat, or rash. It takes about 10 to 21 days from the time of exposure until a person develops the symptoms of chicken pox.

*How is it diagnosed?* Chicken pox and shingles are usually diagnosed by the typical appearance of the rash.

*How is it treated?* There is no specific treatment for chicken pox. The symptoms may be treated, however, with anti-itching medicine and lotions, medicine for fever control, fluids, and rest. Aspirin (or products containing salicylate) should **NOT** be used for fever control because rarely Reye's syndrome (vomiting, liver problems, and/or coma) can result. Scratching should be avoided because it can increase scarring. A vaccine to prevent chicken pox is currently under development.

*When should people with chicken pox and shingles be excluded and allowed to return?* Some infectious disease experts (e.g., F. Denny) believe that exclusion of a child with chicken pox who has mild disease is unnecessary since by the time the diagnosis is made, everyone in contact with the child has been thoroughly exposed. Few child care programs can handle this approach, particularly when parents of children who are well do not understand why children with chicken pox are allowed to attend. Most child care programs have a policy that children and staff with chicken pox should be excluded for **1 week** after the rash first appears (or until all blisters are crusted over and dry).

Children and staff with shingles shed the virus that causes chicken pox and could cause an outbreak of chicken pox. Therefore, unless the shingles rash can be completely covered, it is advisable that people with shingles stay home until the rash is crusted over and dry. The person with shingles must be very careful about personal hygiene.

*Where to report it?* Notify parents and staff about the occurrences of chicken pox (see Figure 17-7). Also notify your health consultant and your local board of health. You do not need to report cases of shingles.

### Special stop-spread information for chicken pox and shingles

The best way to prevent spread of these very contagious diseases is to keep infected people away from the program. Whether prevention of chicken pox infections is desirable for otherwise healthy children is debatable. The severity of the infection tends to increase with increasing age.

- Develop a system for immediate notification if a child or staff member develops chicken pox or shingles.
- Keep a person with chicken pox (or shingles with a rash that cannot be completely covered) at home until the rash is **completely** dry and crusted.
- Watch closely for early symptoms in others for 3 weeks following the most recent case. If a child or staff member develops a suspicious rash, the person's health care provider should be contacted to discuss what to do.

### Serious respiratory tract illnesses—Meningococcal illnesses

*What are they?* Bacteria called Neisseria meningitidis cause meningococcal illnesses, that are serious and sometimes fatal. The most common of these illnesses is **meningitis,** an inflammation of the covering of the brain. People with this type of meningitis **must** be hospitalized immediately and receive intravenous antibiotics. The disease usually starts suddenly with fever, chills, lethargy, and a rash of fine red freckles or purple splotches. Young children with meningitis show symptoms of unusual irritability, poor feeding, vomiting, fever,

### Figure 17-7. Letter to parents about chicken pox

Dear parent or guardian:

_____ A child or staff member in our program has chicken pox.

_____ Your child may have chicken pox.

## Information about chicken pox

*What is it?* Chicken pox is a very contagious infection caused by a virus. It usually begins with a mild fever and an itchy rash. The rash starts as small, red bumps that become blistery, oozy, and then crust over.

*How is it spread?* It is spread through exposure to infected fluids from the nose, throat, or skin rash of someone with chicken pox. This can occur either by sharing that person's breathing space or by directly touching the infected fluids from the skin. Chicken pox is contagious from 2 days before the rash starts until all the rash is dried and crusted. After exposure, it takes 10 days to 3 weeks before the rash appears.

*How is it treated?* Chicken pox is generally not a serious disease and there is no specific treatment for it. The symptoms can be treated with plenty of fluids, rest, anti-itching medicines and lotions, and medicine for fever control.

**ASPIRIN-(SALICYLATE) CONTAINING PRODUCTS SHOULD NOT BE USED FOR FEVER CONTROL IN CHILDREN WITH CHICKEN POX.** There is a possible association between the use of aspirin and a rare but very serious disease called Reye's syndrome (vomiting associated with liver problems and coma).

*What should you do about chicken pox?*

1. Watch your child for the next 10 days to 3 weeks to see if the chicken pox rash develops.

2. Do not send your child to our program with a suspicious rash. Ask your health care provider to diagnose the illness and to give you anti-itching medicine or lotions for your child if the itching is disturbing the child.

3. If your child develops chicken pox, you can return her or him to the program 1 week after the rash began or when all the blisters are dried up and crusted over.

4. Be aware that if one of your children develops chicken pox, other people in the family who have not had it will probably get it, too, because chicken pox is **very** easily spread.

and excessive, high-pitched crying. Older children and adults may experience severe headache, neck pain, and stiffness.

*Who gets them and how?* Although older children and adults can get meningococcal illnesses, they occur most frequently in children younger than 5 years of age (and especially in babies 6 to 12 months of age). The bacteria are passed between people who are in close contact through coughing, sneezing, nasal discharge, saliva, and touching of infected secretions. These bacteria cannot live on environmental surfaces. People called carriers have these bacteria in their noses, throats, or mouths but do not have symptoms of the illness. Both sick people and carriers pass these germs to others. Usually illness occurs 1 to 4 days after a person has been exposed, although incubation can take up to 10 days. If one infection occurs at your center, there are more than the usual number of carriers, and the risk of disease spread increases greatly.

*How are they diagnosed?* These infections are diagnosed by culturing a sick person's blood or spinal fluid. It may take up to 72 hours to grow and identify the bacteria. Sometimes a doctor can make an earlier diagnosis by looking at a person's spinal fluid under a microscope.

*How are these infections treated?* People sick with these infections require hospitalization for special care and a closely supervised program of antibiotics. Sick people and those in contact with them should also take an oral medicine called Rifampin to lower the risk of the spread of the disease to others. (NOTE: Pregnant women and people with liver disease should not take Rifampin.)

*When should people with meningococcal diseases be excluded and allowed to return?* People with meningococcal disease are too ill to attend. They may return when they are well (after hospital treatment) and after they have taken Rifampin for 2 days. Exclude all people who have been in close contact with a person who has meningococcal disease until their treatment with Rifampin is started.

*Where to report them?* Notify all parents and staff **immediately** (see Figure 17-8). Also notify your health consultant and your local board of health.

### Special stop-spread information

The best way to prevent spread of this very contagious disease is to warn everyone that a case has occurred so that Rifampin medication can begin.

- Develop a system for immediate notification if a child or staff member comes down with a meningococcal illness.
- Ask all staff and parents to contact their health care providers immediately.
- Notify your local board of health.
- Require that all close contacts of the ill person including people in the household and in the classroom take Rifampin for 2 days. Classmates and staff in the ill person's class need to take the medicine as soon as possible. Children and staff in separate classes may not need Rifampin. Speak with your health consultant and/or local board of health if you have questions about who is a close contact. Usually, the best way to assure that everyone who needs it gets Rifampin is to have a doctor (e.g., health department consultant) prescribe the medication to be given to all the contacts in the child care program. Compliance is not usually achieved by asking each person to get a prescription from her or his own doctor.
- Make parents and staff aware that Rifampin does NOT give absolute protection against disease. **Therefore, any child or adult who develops symptoms such as fever or headache requires prompt evaluation by a health care provider.**
- Monitor the situation closely for 2 to 3 weeks. Make sure all ill children are seen by their doctors and that you are notified if another person develops meningococcal disease.

### Serious respiratory tract illnesses—Haemophilus influenzae type b illness (Hib disease)

*What is it?* Haemophilus influenzae type B (Hib) is the bacteria that cause serious, sometimes fatal illnesses, most often in young children. Some of the diseases the bacteria can cause are

- epiglottitis—infection of the upper throat and entrance to the windpipe
- cellulitis—infection of the deep skin, especially of the face and neck
- meningitis—infection/inflammation of the coverings of the brain
- arthritis—infection and swelling of the joints
- pneumonia—infection of the lung
- bloodstream infections

*Who gets them and how?* These illnesses occur primarily in children younger than 5 years of age, most of them in children younger than 2. Ep-

### Figure 17-8. Letter to parents about meningococcal illnesses

Dear parent or guardian:

A child or staff member in our program has a serious infectious illness caused by bacteria named Neisseria meningitidis. The bacteria can spread between persons who share breathing space or are in close physical contact. There is a medicine called Rifampin that can be taken to reduce the risk of infection in people in close contact with the ill person.

_____ Your child has been in close contact (same classroom or shared activities) with this child or staff member.

_____ Your child has not been in close contact with the ill person.

**Please take these steps:**

1. **Call your health care provider.** Tell her or him that your child is in a group program where another child or staff member has come down with a menigococcal illness. Indicate whether or not your child has been in close contact with the ill person.

2. **If your child has had close contact, our health consultant may recommend that your child take a medication called Rifampin (unless there is some reason why your child could not take this drug). Rifampin can help eliminate the germ from someone else who has been exposed. We will help your child receive Rifampin if it is recommended by our health consultant. Be sure to let your child's doctor know whether or not your child received Rifampin.**

3. **If your child has had close contact, do not return her or him to the program until the Rifampin treatment has been started.**

4. **Watch your child for signs of illness or a fever for the next 3 weeks. If your child becomes ill, take her or him to a doctor immediately, whether or not Rifampin was given.** The medicine is not always 100% effective. Neisseria meningitidis usually causes meningitis, an infection of the coverings of the brain, that is often fatal if not treated with antibiotics.

5. Remember that our program will be very watchful during the next 3 weeks. We will notify you if anyone else becomes ill.

iglottitis is an uncommon problem found most often in children 2 to 4 years old, while the other diseases are most common in children younger than 2 years. Children in group settings may be at greater risk of catching these illnesses. Older children and adults rarely develop these illnesses.

As with meningococcal illnesses, Hib disease requires relatively close contact in order to spread between people. Spread is more likely among children younger than 4, with the highest risk in children younger than 2. In programs where there are young children and everyone is in close contact, there may be an increased risk of a second infection following a first case.

The bacteria are passed from person to person, by direct contact, or by breathing infected droplets of nose or throat fluids scattered in the air. The bacteria cannot live on environmental surfaces. Some people can carry the bacteria in their nose or throat for a period of time without becoming ill themselves. Both sick people and carriers may spread the bacteria to others who may then become ill.

*How is it diagnosed?* These illnesses are diagnosed by culturing blood, spinal fluid, or other infected fluid. It may take up to 72 hours to grow and identify the bacteria. Sometimes a doctor can make an early diagnosis by looking at the infected fluid under a microscope.

*How is it treated?* People sick with these infections generally require hospitalization. Both sick individuals and other people sharing the household should take Rifampin to reduce the risk of spreading Hib disease.

There is disagreement among authorities about the effectiveness of Rifampin in **preventing** the spread of Hib. There is also disagreement as to whether Rifampin, if used to prevent spread, should be taken by children after a single case of Hib disease in a program or only after two cases. There is agreement that **Rifampin is unlikely to effectively prevent spread unless all children and staff in the classroom take the medicine;** otherwise the bacteria can be brought back by a carrier who did not take the medicine. You and your health consultant should decide on a policy for Rifampin use and notify parents of the program's requirements **prior** to an actual infection.

A recently licensed vaccine for prevention of Hib infections is recommended for all children from 18 months to 5 years old, particularly those in group programs. This vaccine should be given during regular health care visits and takes 2 weeks to take full effect. It is not effective in preventing Hib in someone who has already been exposed or in preventing the immediate spread of Hib. Children may be at slightly increased risk of coming down with Hib disease during the week following the shot.

*When should people with Hib disease be excluded and allowed to return?* Exclude children and staff who are ill with Hib disease while they are ill and if your health consultant recommends it, until they have taken Rifampin for 4 days. Exclude children who do not receive the Rifampin as required by your policy on **preventive Rifampin use.** Some experts (including the AAP) are not convinced that Rifampin is helpful in child care settings. Also, in situations where too long a delay between the prescription and exposure has occurred, Rifampin is not indicated.

*Where to report Hib disease?* Notify all parents and staff immediately (see Figure 17-9). Also notify your health consultant and your local board of health.

### Special stop-spread information

- Develop a policy regarding preventive Rifampin use.
- Develop a system for immediate notification if a child or staff member develops a Hib illness.
- Ask all staff and parents/guardians to contact their health care provider immediately.
- Notify your local board of health.
- Make parents and staff aware that Rifampin does not provide 100% protection against disease. Therefore, any child or adult who becomes ill should be seen promptly by a health care provider.
- Make sure all ill children are seen by their doctors and that you are notified if another person develops Hib infection.
- Encourage parents to see that all attending children between 18 months and 5 years of age receive the Hib vaccine, and suggest it to parents for all children as they turn 18 months old.

### Serious respiratory tract illnesses—Tuberculosis (TB)

*What is it?* **Tuberculosis (TB)** is caused by bacteria called Mycobacterium tuberculosis that usually causes an infection of the lungs. Transmission of the disease occurs when an infected adult coughs TB bacteria into the air and another person who shares close breathing space inhales them. Except under unusual circumstances, TB is not highly contagious and generally requires prolonged or in-

## Figure 17-9. Letter to parents about Hib disease

Dear parent or guardian:

A child in our program has a serious infectious illness caused by bacteria named Haemophilus influenzae type b. (A short way of writing the name is *Hib.*) Hib can spread between people who are in close physical contact and share breathing space. Hib is not at all related to the regular flu.

_____ Your child has been in close contact (same classroom or shared activities) with this child or staff member.

_____ Your child has not been in close contact with the ill person.

Hib can cause very serious illnesses such as meningitis (infection of the coverings of the brain), pneumonia, arthritis, epiglottitis (infection of the upper throat), blood infections, and skin infections. All of these illnesses require hospital treatment and intravenous antibiotics. Because the bacteria can spread from child to child and because they can cause serious illness, we want to make you aware of the fact that your child may have been exposed.

[*Insert a statement of your recommendations and policy regarding the use of Rifampin to reduce the risk of spread.*]

### Please take these steps:

1. **Call your health care provider.** Tell her or him that your child is in a program where another child has come down with an illness caused by Haemophilus influenzae type b (Hib). Indicate whether or not your child has been in close contact with the ill person. Describe our program's policy on Hib and Rifampin.
2. **Watch your child for signs of illness or a fever. If your child becomes ill, take her or him to your health care provider.** Watch your child especially carefully in the next week, and continue watching for a month.
3. Remember that our program will also be very watchful over the next month. We will notify you if another child comes down with this illness.

tense exposure to cause infection. Most persons who inhale TB bacteria are protected from infection by their immune systems that wall up the bacteria in tiny, hard capsules (tubercules). Bacteria in tubercules do not usually cause illness.

People who have been infected with the TB germ who do not have the disease can be identified by positive tuberculin skin tests (such as tine, Slavo, or Mantoux tests). People with positive skin tests are not contagious and do not feel ill. However, if their defense systems become weakened due to other health problems, the walled up germs could begin to multiply, break out of the capsules, and cause disease. Most cases of TB in the United States are caused by such reactivation of old TB infection. A special anti-TB medicine can be taken to prevent an infected person from breaking down with TB. This medicine is taken once daily for a year.

People who have active TB disease have symptoms of coughing, infected sputum, fever, weight loss, and abnormal chest X-rays. More rarely, TB germs can cause disease in other body organs. Persons with TB disease in areas other than the lung are usually not contagious to others, because the TB germ must be in the air and inhaled in order to cause infection in another person.

*Who gets it and how?* Anyone who shares breathing space with an adult with active TB lung **disease,** usually over a long period of time, can develop TB **infection.** Only a few of those infected, however, will develop TB **disease.** Infants, young children, and people with problems of the immune system are more likely to develop serious TB disease if infected.

When people with active lung disease cough, sneeze, or spit they spread bacteria into the air in microscopic droplets from the nose, mouth, and lung. These germs can be breathed by someone who shares close breathing space with an infected person over a prolonged period of time. TB is not spread by brief contact in large, spacious areas or by handling a diseased person's bed sheets, books, furniture, or eating utensils.

The TB germ is spread only from a person with active TB disease, usually in the lungs, to another person. Not all cases of TB disease are equally contagious. Advanced TB of the lung with extensive lung damage (as shown on a chest X-ray) is more often accompanied by a wet cough and is thus much more contagious than lung disease with few X-ray findings and little cough. Infants and children with TB disease are usually not contagious. This is because the TB germs are scattered in the lungs, and children are less likely to cough up and spit out phlegm from their lungs.

*How is it diagnosed?* Infection with the TB germ is diagnosed by a tuberculin skin test (a tine, Slavo, or Mantoux test). A test is called *positive* when there is a significant amount of swelling at the skin test site 48 to 72 hours after the test is placed. After a person first breathes TB bacteria, it may take 2 to 3 months for the skin test to become positive. A positive skin test indicates exposure to the TB germ at some time in the past, causing the body to develop a response of the defense system to contain the germ. A positive test does not indicate if a person has TB disease. Further evaluation by chest X-ray and medical examination is used to determine if infection has been contained by the person's defense system or has progressed to active disease. If a person has a positive skin test AND symptoms (such as cough and fever), additional studies such as TB sputum cultures may also be done. The TB germ grows very slowly, and it can take up to 3 months before a culture shows growth of the germ.

*How is it treated?* TB is readily treated with several medications, taken for 9 to 18 months. These medications usually make the person noncontagious within a few weeks. TB infection without disease (that is, a positive skin test only) can be prevented from progressing to disease by taking a single medication daily for a year.

*When should people with TB be excluded and allowed to return?* Anyone who has been diagnosed with active TB disease must be excluded from attending or working in programs for young children. Children who have only a positive TB skin test (with a normal chest X-ray and no symptoms of disease) can attend. (They usually take medicine to prevent the rare possibility of developing active disease.) Children and staff with TB disease may return after they have begun treatment and their health care provider states that they are not contagious.

*Where to report it?* You must report **TB disease** to your local board of health. (TB **infection**—positive skin test without symptoms and with a normal chest X-ray does not need to be reported.) Notify all staff, parents, and your health care consultant if a case of active TB disease occurs in your program. Your local board of health can help you to notify parents and can conduct an evaluation of exposed people, including free TB skin testing.

### Special stop-spread information

- **ALL** adult staff (paid or volunteer) should receive either a tine, Slavo, or Mantoux test **before** they start to work. If the test is positive and an X-ray is recommended, it should be done before the person comes to work also. Any adult with TB lung disease, particularly if associated with extensive lung damage on chest X-ray and wet cough, can present a significant risk to children and other adults. People with positive skin tests should receive an appropriate evaluation and medical clearance from their health care provider before beginning work.

- You may wish to require a TB skin test for newly entering children as part of their entrance physical examination, particularly if you are located in an area where the rate of TB disease is higher than average. Your local board of health can give you information about the TB rate in your area.
- Ask your local board of health to conduct an evaluation of exposed people if a child or staff member is diagnosed with active TB. This evaluation should include TB skin testing of program children and staff, and medical evaluation of anyone with a positive skin test. (The skin test needs to be repeated 2 to 3 months later because it may take several months to turn positive after the person is first exposed to the TB germ.)

## Diseases spread through direct contact

### Superficial infections and skin infections—Impetigo, ringworm, conjunctivitis, scabies, and pediculosis

These diseases are caused by superficial bacterial or viral infections, or parasitic infestations. They are common and are not serious. They are spread by direct contact with infected secretions, infected skin areas, or infested articles. Because young children are constantly touching their surroundings and the people around them, these infections are easily spread among children and their teachers. The direct contact method of disease spread is illustrated in these examples:

- A child has oozy sores on his arm. While playing with another child, he rubs his arm against hers. Some ooze gets on her arm and then into a cut or scratch on her skin.
- A child with head lice takes off his hat that has a louse on it. A second child puts on the hat and the louse climbs onto his head.
- A child has runny eyes. She rubs them with her hand, then puts her hand on a toy. Another child touches the toy, gets eye discharge on his hand, rubs his eyes, and puts eye discharge from the first child into his own eyes.

### How to stop spread of superficial/skin infections

1. Follow these handwashing and cleanliness guidelines:

- Make sure staff and children thoroughly wash their hands after contact with any possible infectious secretions.
- Use **free-flowing water** for handwashing.
- Use liquid soap dispensers whenever possible.
- Always use disposable tissues or towels for wiping and washing.
- Never use the same tissue or towel for more than one child.
- Dispose of used tissues and paper towels in a lined, covered container that is kept away from food and materials.

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*Because young children are constantly touching their surroundings and the people around them, diseases spread through direct contact are common among children and their teachers.*

- Wash and sanitize toys at least daily. Wash or vacuum frequently used surfaces (tables, counters, furniture, floors) daily.

2. Make sure that each child has her or his own crib or mat and does not switch. Sheets and mats should be kept clean and stored so that the sleeping surfaces do not touch each other.
3. Do not allow children to share personal items such as combs, brushes, blankets, pillows, hats, or clothing.
4. Store each child's dirty clothing separately in plastic bags and send it home for laundering.
5. Wash and cover sores, cuts, and scrapes promptly and wipe eyes dry.
6. Report rashes, sores, running eyes, and severe itching to the parents so they can contact their health care provider.

### Impetigo

*What is it?* Impetigo is a very common skin infection caused by Streptococcal or Staphylococcal bacteria. It may start as oozing at an injured spot on the skin (such as an insect bite, cut, or burn) and can easily be spread by the person's hands to other areas of the skin. Children often have impetigo on their faces. The rash looks oozy, red, and round; may have a flat, honey-colored crust; and may be itchy. In impetigo caused by either strep or staph bacteria, sometimes there are blisters that break easily leaving raw, red, oozy skin exposed. In impetigo caused by strep bacteria, kidney disease can develop under very rare circumstances. Impetigo is most commonly seen during warm, summer months.

*Who gets it and how?* Ordinarily the skin protects the body from bacteria. When the skin is broken (cut, scraped, bitten, scratched), bacteria can get under the surface, multiply, and cause an infection. Children often have multiple cuts and scrapes on their bodies that make them more vulnerable to impetigo than adults. Most children have impetigo at least a few times during their growing-up years. Impetigo bacteria are found all over infected skin, on the crusts, and in the ooze. They can be spread to another person who directly touches the skin or a surface contaminated by the ooze or crusts. Bacteria that get under the top protective skin layer of the second person multiply and cause infection.

*How is it diagnosed?* Impetigo can be diagnosed by the way it looks. Bacterial cultures are not usually needed. Strep and staph impetigo may look the same, although staph tends to cause blisters more often.

*How is it treated?* Usually some combination of a special soap, an antibiotic ointment, and sometimes an oral antibiotic is given.

*When should people with impetigo be excluded and allowed to return?* Children and staff do not need to be sent home in the middle of the day if a suspected impetigo rash is noticed. Wash a child's rash area with soap and water and cover it. **Wash your hands and the child's afterwards.** Notify the parents when they come to pick up the child and tell them to check with the child's health care provider. Children and staff can come back after using medicine for 24 hours. The sores should be kept lightly covered until they have dried up.

*Where to report it?* Notify parents and staff (see Figure 17-10).

### Special stop-spread instructions for impetigo

- When children hurt themselves and cause a break in the skin, wash the area thoroughly with soap and water and dry carefully.
- If you think a child may have impetigo, wash the rash with soap and water and cover it loosely with gauze, a bandage, or clothing. Be sure those who touch the rash wash their hands well. Dispose of any soiled tissues or bandages carefully; keep any dirty clothing in a plastic bag; and ask the parents to have the child seen by their health care provider.

### Ringworm (tinea)

*What is it?* Ringworm (or tinea) is a mild infection of the skin or nails caused by several different fungi. Ringworm infections are not serious and are easily treated. On the skin, ringworm appears as a flat, growing, ring-shaped rash. The edges of the circle are usually reddish and may be raised, scaly, and itchy; the center of the circle is often clear. Another type of ringworm fungus can cause the skin to become lighter in flat patches, especially on the trunk and face. On the scalp, infection begins as a small bump and spreads outward, leaving scaly patches of temporary hair loss. Scales, cracks, and blisters may be seen on the skin between the toes. A chronic infection of the nails can cause thickening, discoloration, and brittleness.

*Who gets it and how?* Ringworm is spread when infected skin touches healthy skin or when infected broken nails or skin flakes fall onto the floor, get onto hair scissors or clothes, and are touched later by other people.

## Figure 17-10. Letter to parents about impetigo

Dear parent or guardian:

_____ A child in our program has impetigo.

_____ Your child may have impetigo.

### Please take these precautions:

1. Check your child's skin for an impetigo rash.

2. Take your child to your health care provider if you suspect your child has an impetigo rash so that medicine may be prescribed.

3. Tell us if your child is treated for impetigo.

4. If your child has impetigo, return her or him to the program the day **after** treatment is begun.

### Information about impetigo

*What is it?* Impetigo is a skin infection common in young children. It is seen mostly on the face and around the mouth, but can occur any place on the skin. In impetigo infections, the skin becomes red and may ooze. There may be small bumps clustered together or larger red areas. These areas may have honey-colored crusts or blisters. Impetigo spreads quickly and is often itchy. Children may scratch the crusts off and cause a little bleeding.

*What causes it?* Impetigo is caused by common skin germs (such as strep and staph). These germs usually cause infection only when the skin gets injured (scraped, cut, or scratched). Impetigo can spread easily among young children who touch everything.

*How is impetigo diagnosed and treated?* Your health care provider can tell you if your child has impetigo. Usually it is treated with some combination of a special soap, an antibiotic ointment, and sometimes an oral antibiotic.

*What should you do about impetigo?* The most important thing is to keep the impetigo rash clean and dry. You may want to cover it lightly so the ooze and crusts cannot be spread to other people. People who touch the rash should wash their hands very well.

*How is it diagnosed?* These infections can often be diagnosed by their typical appearance. Sometimes a special lamp is used to examine for ringworm. Occasionally, scrapings of suspicious skin may be examined under a microscope or cultured to see if a ringworm fungus is present.

*How is it treated?* An antifungal ointment is usually applied to the skin for several weeks. Occasionally, antifungal medicine is taken by mouth, particularly if the diagnosis is ringworm of the scalp.

*When should people with ringworm be excluded and allowed to return?* There is no need to exclude children or staff with these common, mild infections, once treatment has been started. Refer people with a suspicious rash to their health care providers for appropriate diagnosis and treatment, and allow them to return as soon as treatment has begun.

*Where to report it?* Notify parents and staff if more than one person in the program develops ringworm (see Figure 17-11).

### Special stop-spread information for ringworm

Keep the environment as clean, dry, and cool as possible, since ringworm fungi grow easily on moist, warm surfaces.

### Conjunctivitis (pinkeye)

*What is it?* Conjunctivitis (or pinkeye) is an infection of the eyes most often caused by a virus but also caused by bacteria. With this infection, the white parts of the eyes become pink and the eyes produce lots of tears and discharge. In the morning, the discharge may make the eyelids stick together. (Some children and adults have allergies that can cause everything listed here except pus.) Conjunctivitis is a mild illness. Viral conjunctivitis will go away by itself in 1 to 3 weeks.

*Who gets it and how?* Children have conjunctivitis most often and spread it to people taking care of them or to other children when some pinkeye pus gets into an uninfected person's eyes. Children often pass the infection by rubbing their eyes, getting discharge on their hands, and touching someone or something. Conjunctivitis can also be spread when staff wash, dry, or wipe a child's face and then use the same washcloth, towel, paper towel, or tissue on another child's face. Staff could also get eye discharge on their hands when wiping a child's eyes and then pass it along as outlined above.

*How is it diagnosed and treated?* Symptoms of conjunctivitis are obvious; however, it is often difficult to tell if the cause is bacterial or viral. Occasionally the doctor will examine the discharge under a microscope or culture it. Often an antibiotic eye medicine will be given because treatment of bacterial conjunctivitis shortens the length of symptoms and decreases infectiousness. There is no treatment for viral conjunctivitis that will go away by itself but may last a week or more. It is recommended that children who have conjunctivitis be treated by rinsing out the eye and by sometimes using an antibiotic eye medicine to prevent spread of the infection.

*When should people with conjunctivitis be excluded and allowed to return?* Children with conjunctivitis do not need to be sent home in the middle of the day. Let parents know that the symptoms were noticed, and allow infected children to return the day after treatment has begun. The parents should notify the program if the health care provider decides not to prescribe a medicine.

*Where to report it?* Notify parents and staff (see Figure 17-12).

### Special stop-spread information for conjunctivitis

- Keep children's eyes wiped free of discharge, and always wash your hands after wiping a child's eyes.
- Teach children to wash their hands after wiping their eyes.
- Be sure articles that may touch children's eyes (such as prisms, toy binoculars, and toy cameras) are washed well with soap and water at least once daily.

### Scabies

*What is it?* Scabies, a common skin infection, is caused by a microscopic parasite called a mite that infects only people. The female mite burrows under the skin to lay her eggs that hatch and start the infestation cycle again. An infected person usually has only 10 to 12 mites.

Symptoms of scabies do not appear until 2 to 6 weeks after initial exposure. On re-exposure, symptoms can start within days. Scabies symptoms include an intensely itchy rash (with red bumps and burrows—short, wavy, dirty-looking lines in the skin). An infected person's scratch marks may cover up the typical appearance of the rash. The rash usually appears on the sides of the fingers and finger-webs, wrists, elbows, underarms, and belt

## Figure 17-11. Letter to parents about ringworm

Dear parent or guardian:

______ A child in the program has ringworm.

______ Your child may have ringworm.

### Please take these precautions:

1. Check your child for ringworm, using the information given below.
2. Take your child to your health care provider if you think she or he has ringworm.
3. Tell us if your child has ringworm.

### Information about ringworm

*What is it?* Ringworm is a rash caused by a fungus. On the body you may see red rings that are slightly raised, itchy, and scaly. On the scalp you may see circles of hair loss. On the feet you may see cracking and peeling between the toes. Another kind of ringworm causes whitish patches on the face or body. All of these forms of ringworm spread easily. Ringworm is not dangerous and can be treated easily.

*How do people catch ringworm?* Ringworm is spread by touching the rash on another person or touching the scales or broken hairs that have fallen off the rash.

*How is ringworm diagnosed?* Your health care provider can usually identify ringworm by looking at the rash. Sometimes other tests are needed.

*When can your child come back?* She or he can return to the program the same day treatment (usually an ointment, sometimes a medicine by mouth) is started.

## Figure 17-12. Letter to parents about conjunctivitis

Dear parent or guardian:

______ A child in our program has conjunctivitis (also called pinkeye).

______ Your child may have conjunctivitis.

### Please take these precautions:

1. Watch your child and members of your family for signs of pinkeye.
2. See your health care provider if your child develops pinkeye. Your child may need to be given an eye medication.
3. Do not send your child to the program until **the day after** you start giving the medicine. If your health care provider decides not to prescribe an eye medicine, ask for a note to send in with your child.
4. Tell us if your child is being treated for pinkeye.

### Information about conjunctivitis

*What is it?* Pinkeye is an infection of the eyes. It is most often caused by a virus but can also be caused by bacteria. The white parts of the eyes become pink or red; the eyes may hurt, feel itchy or scratchy; and the eyes may produce lots of tears and discharge. In the mornings, the discharge (pus) may make the eyelids stick together. (Some children and adults have allergies that can cause everything listed here **except pus.**) Conjunctivitis is a mild illness and is NOT dangerous. Doctors usually prescribe an antibiotic eye medication just in case it is due to bacteria.

*How do you catch conjunctivitis?* The pus is infectious. If children rub their eyes, they get it on their hands. They can then touch someone's eyes or hands or touch an object (toy or table). If other children get discharge on their hands and then touch their own eyes, they can catch it. It can spread easily among young children who touch their eyes and everything else and who do not know how (or forget) to wash their hands.

*What should you do if your child has conjunctivitis?*

1. Keep your child's eyes wiped free of discharge. Use paper tissues and throw them away promptly.
2. **Always thoroughly wash your hands after wiping your child's eyes.**
3. Teach your children to wash their hands after wiping their eyes.
4. Ask your health care provider if your child needs to receive eye medication.
5. Be sure to wash carefully anything that touches your child's eyes (such as washcloths, towels, toy binoculars, and toy cameras).

lines. In infants, the head, neck, palms, soles, and buttocks may also be involved.

*Who gets it and how?* Anyone who has contact with the mite can become infested with scabies by skin-to-skin contact or by skin contact with clothes or bedding, for example. The mites can survive only 3 days off the body and cannot jump or fly. They require direct contact with skin to be spread.

*How is it diagnosed?* Scabies can be diagnosed by the typical appearance of the rash and accompanying symptoms and by examining skin scrapings under a microscope to see the mite or its eggs.

*How is it treated?* Scabies can be treated with one of several prescription mite-killing creams or lotions. These are applied once to the skin and then washed off after a specified period of time. Medicine to relieve the itching is often necessary. Even after effective therapy, itching can persist for as long as 4 weeks. Some doctors may treat all household members (even those without symptoms) once, due to the high likelihood of spread within a household.

*When should people with scabies be excluded and allowed to return?* Children or staff do not need to be sent home in the middle of the day if a rash that appears to be scabies is noticed. Ask parents to take infested children to their health care provider for treatment. An infested person can return the day after treatment is started.

*Where to report it?* Notify parents and staff (see Figure 17-13).

### Special stop-spread information for scabies

- Wash and dry on the hot cycle all washable items that came into contact with the child's skin during the 72 hours prior to treatment.
- Store difficult-to-wash items (such as stuffed toys and pillows) in tightly closed plastic bags for 4 days before using again.
- Thoroughly vacuum any carpet or upholstered furniture.
- Talk with your health consultant if you think you have a major problem with scabies, because it may be necessary to treat all children and adults in the group once.
- Do not use pesticide sprays because they can be harmful to people and animals.

### Pediculosis (head lice)

*What are they?* Head lice are tiny insects that live only on people's scalps and hair. They hatch from small eggs, called nits, that are firmly attached to the individual hairs near the scalp and cannot be easily moved up or down the hair (as could specks of dandruff). Nits may be found throughout the hair but are most often located at the back of the scalp, behind the ears, and at the top of the head. The eggs hatch in about 10 days, with new lice reaching adulthood in about 2 weeks. The female louse is about the size of a sesame seed, can live for 20 to 30 days, and can lay about six eggs a day. The lice live by biting and sucking blood from the scalp. Lice can survive up to 8 hours between feedings and can do so off the body.

The major symptom of head lice is itching caused by the bite of the louse. Persistent scratching of the head and back of the neck should be viewed with suspicion. Often red bite marks and scratch marks can be seen on the scalp and neck, and a secondary bacterial infection can occur causing oozing or crusting. Swollen neck glands can also occur.

*Who gets them and how?* Head lice are not a sign of unclean people or homes. They can occur at any age and afflict either sex. Anyone who has close contact with an infested person or shares personal items can become infested. Lice are spread **only** by crawling from person to person directly or onto shared personal items, such as combs, brushes, head coverings, clothing, bedding, and towels.

*How are they diagnosed?* Diagnosis is usually made by finding nits—tiny, pearl gray, oval-shaped specks attached to the hair near the scalp. Use a magnifying glass and natural light when you search for them on the hair at the back of the neck, behind the ears, and at the top of the head.

*How are they treated?* Treatment consists of getting rid of the lice from both the infested person and the surroundings and personal items. All household members and people with close physical contact should be examined for lice and treated if infested. Some health care providers may simultaneously treat all members of a household once.

To treat an infested person:

- Use a medicine such as Nix or Prioderm Lotion (available by prescription only). These brand names are mentioned for identification purposes only (not an endorsement). Other similar products may be used.
- **Use these products very carefully and consult a physician before treating infants, pregnant or nursing women, or people with extensive cuts or scratches on the head or neck.**
- After shampooing the hair with medicine, remove all the nits or eggs. This is a difficult and time-

Figure 17-13. Letter to parents about scabies

Dear parent or guardian:

_____ A child in our program has scabies.

_____ Your child may have scabies.

## Please take these precautions:

1. During the next 6 weeks, watch for signs of an itchy rash that usually appears in lines.
2. If a rash develops, see your health care provider.
3. Tell us if your child has scabies.

## Information about scabies

*What is it?* Scabies is a common skin rash caused by microscopic animals called mites that are found only on people. The mite digs under the skin and lays eggs that hatch. The new mites dig more paths and lay more eggs. The rash appears as red bumps and short, wavy lines in the skin (where the mites have dug). It is especially common between fingers and toes and at the wrists and ankles, but can occur anywhere. The rash is intensely itchy. Scabies is not dangerous, but it is very annoying. Anyone can get scabies from another person who has it or from clothes or bedding used by a person with scabies. The mites cannot jump or fly, but they can crawl. They can live for 3 days off the body.

*What to do if your child has scabies*

1. See your health care provider to get medicine to treat the scabies.
2. Wash all items such as clothes, hats, sheets, pillowcases, blankets, and towels, that your child has used, in **HOT WATER.** Dry these items on the hottest setting on the dryer.
3. Put things that you do not want to wash (pillows, blankets, toys, stuffed animals) away in tightly closed plastic bags for 4 days.
4. Thoroughly vacuum all carpets and upholstered furniture. Do not use pesticide sprays—they can be harmful to people and animals.

*When can your child come back?* Return your child to the program on the day after treatment was given. Sometimes your doctor may want to treat the whole family because scabies can spread so easily.

consuming process, because the nits have such a firm grip on the hair. A solution of vinegar and water may help loosen the nits so you can remove them more easily with a special, fine-toothed, nit-removal comb.

- Check for nits daily for the next 10 days. If new nits or newly hatched lice appear, the treatment may need to be repeated. **Treatment should be repeated in 10 days to kill newly hatched lice** unless an ovacidal preparation such as Nix is used.

To treat personal items and surroundings:

- Machine wash all washable and possibly infested items in HOT water. Dry them in a HOT dryer.
- Put non-washable items (furry toys, pillows) in a hot dryer for 20 minutes or dry-clean them.
- Seal items that cannot be washed or dried in a plastic bag for 30 days (the life cycle of a louse).
- Boil combs and brushes for 10 minutes, or soak them for 1 hour in the bleach solution.
- Thoroughly vacuum rugs, upholstered furniture, and mattresses.
- Do not use insecticide sprays because they can be harmful to people and animals.

*When should people with pediculosis be excluded and allowed to return?* A child found to have an active case of head lice should be kept separate from other children. Notify the parent that the child may not return until treated. Other close contacts should be checked to determine if there are other cases. If your program is having a problem with head lice, you should conduct morning head checks before the children mingle together. There is some disagreement among authorities about whether to require complete nit removal after treatment before allowing a child to return. Removal of nits is difficult, and the majority of nits will be killed by treatment. However, reinfestation is possible if some nits survive and hatch into adult lice. If the nits are not removed, you will not be able to tell whether reinfestation has occurred or there are only old nits. Program staff and the health consultant should decide on the best policy for both you and the parents. Regardless of the policy, to ensure successful treatment the children need to be checked for new nits for 10 to 14 days after therapy.

*Where to report them?* Notify parents and staff if a case of head lice occurs (see Figure 17-14).

### Special stop-spread instructions for pediculosis

- Learn to recognize nits, and regularly check children's hair when there is a known case of head lice. Because almost all programs will have outbreaks of head lice periodically, and because the hysteria produced by head lice is far greater than their threat to health, this is a prime area for preventive, anticipatory parent information. A well-organized and prompt response to the first few cases can prevent a widespread problem.
- If a case is identified, your program should follow treatment procedures outlined above.

### General infections and total body infections—Cytomegalovirus, herpes simplex, and sexually transmitted diseases

These generalized infections are caused by direct contact and can be more serious than the skin infections previously described. People with these infections can experience symptoms ranging from no illness or mild illness (such as cold sores) to a total body illness. Some infections (such as syphilis) are treatable, but others (such as cytomegalovirus) are not. What they have in common is the way they are spread from person to person. Anyone can get these infections and can carry the germs in their body secretions for months or even years, even though these carriers may not experience symptoms. The germs that cause these infections are spread when the secretions they are in (such as saliva) penetrate the skin or mucous membrane of another person. The germs then enter the other person's body and multiply. This process can occur when germs get on skin that is broken, cut, or scraped, or on mucosal surfaces such as the inside linings of the mouth, eyes, nose, rectum, or sex organs. These infections may also be transmitted from an infected mother to her newborn infant.

*How to stop spread of generalized or total body infections.* You should assume that every body secretion is potentially contagious, and take these preventive actions:

- Insist that staff and children wash their hands well after any contact with blood, saliva, urine, stool, skin sores, or genital secretions.
- Make sure that staff and children place disposable items that are stained with body secretions (diapers, tissues, bandages, paper towels) in a lined, covered step can that is kept away from food and materials.
- Store clothing and other personal items that become stained with body secretions separately in plastic bags, and send them home for separate laundering and bleaching.
- Wash and sanitize surface areas and toys that become stained with body secretions or blood

## Figure 17-14. Letter to parents about head lice

Dear parent or guardian:

_____ A child in our program has head lice.

_____ Your child has head lice.

Please do not be alarmed, as this is a common occurrence in group programs. Head lice are not a sign of unclean people or homes.

### Please take these precautions:

1. Check your child's hair for eggs (also called nits).
2. If you suspect your child has head lice, ask your health care provider to diagnose the problem and recommend appropriate treatment.
3. Tell us if your child is diagnosed as having head lice.
4. If head lice are diagnosed, do not return your child to the program until she or he has been treated.

### Information about head lice

*What are they?* Head lice are tiny insects that live only on people's scalp and hair. They hatch from small eggs (nits), that are firmly attached to the individual hairs near the scalp and cannot be easily moved up or down the hair (as can specks of dandruff). They look like grains of sand. Nits may be found throughout the hair but are most often located at the back of the scalp, behind the ears, and at the top of the head. The eggs hatch in about 10 days, with new lice reaching adulthood in about 2 weeks. The female louse is about the size of a sesame seed, can live for 20 to 30 days, and can lay about six eggs a day. The lice live by biting and sucking blood from the scalp. Lice can survive up to 8 hours between feedings and can do so off the body.

*How should you check for head lice?* Usually, you probably will not see the lice, only the eggs. These are tiny, pearl gray, oval-shaped specks attached to the hair near the scalp. Look carefully, using a magnifying glass and natural light. Search for nits at the back of the neck, behind the ears, and at the top of the head.

*How does a person get head lice?* Anyone who has close contact with an infested person or shares personal items can become infested. Lice are spread **only** by crawling from person to person directly or onto shared personal items, such as combs, brushes, head coverings, clothing, bedding, or towels.

*What should you do about head lice?*

1. If your child does have head lice, your health care provider may want to treat everyone in your family. Everyone should be checked, and anyone with nits should definitely be treated.

2. To get rid of head lice

- **Use a medicine** such as Nix or Prioderm Lotion (available by prescription only). Brand names are mentioned for identification purposes only (not endorsement). Other similar products may be used. **Use any of these products very carefully, and consult a physician before treating infants, pregnant or nursing women, or people with extensive cuts or scratches on the head or neck.**

## Figure 17-4 cont. Letter to parents about head lice

- **Remove all nits** after shampooing the hair with medicine. This is a difficult and time-consuming process because the nits have such a firm grip on the hair. Using a solution of vinegar and water may help loosen nits so you can remove them with a special, fine-toothed, nit-removal comb.
- **Check for nits daily for the next 10 to 14 days.** Then repeat treatment to kill any newly hatched lice.
- **Clean personal items and surroundings**

  —Machine wash all washable and possibly infested items in HOT water. Dry them in a HOT dryer.
  —Put non-washable (furry toys or pillows) in a HOT dryer for 20 minutes or dry clean them.
  —Seal items that cannot be washed or dried in a plastic bag for 30 days (the life cycle of a louse).
  —Boil combs and brushes for 10 minutes, or soak them for 1 hour in a bleach solution of 1 tbs. of bleach mixed with 1 quart of water.
  —Thoroughly vacuum rugs, upholstered furniture, and mattresses.
  —Do not use insecticide sprays because they can be harmful to people and animals.

*When can your child return?* Your child may come back as soon as the shampoo has been used, you have removed as many nits as possible from your child's hair, and you have cleaned or stored personal items. Remember that you must keep checking your child's hair for new nits for at least 2 weeks.

using the bleach solution. Clean or dispose of cleaning items (mops, rags, and towels) properly.

- Do not permit aggressive behavior (biting, scratching).
- Do not allow sharing of personal items that may have been contaminated with blood or other body fluids (toothbrushes, washcloths, teething rings).

### Cytomegalovirus (CMV) infection

*What is it?* Cytomegalovirus is a very common infection found especially in young children. In most cases, CMV causes no symptoms. Occasionally, children or adults with CMV will experience mononucleosis-like symptoms (fever, swollen glands, fatigue). Persons infected with CMV often have the virus in their bodies for as long as several years. During this time, they continue to shed viruses into such body secretions as saliva, urine, genital secretions, and (rarely) blood. Once people are infected with CMV, they develop substances called antibodies that prevent them from getting new CMV infections.

CMV concerns early childhood programs primarily because it can cause problems for pregnant women. If a pregnant woman **who has never had CMV** becomes infected, especially during the first trimester, the fetus may also become infected. If this happens, in rare cases the fetus may suffer mental retardation, hearing loss, or other sensoric problems. The mother may not realize she is sick or may have only a mild, flu-like illness.

*Who gets it and how?* CMV is usually caught by children from the ages of 1 to 2 years. The virus can also spread to people who have regular, close physical contact with children's secretions. At any given time, 20% or more of the children in a group may have CMV but show no signs of illness. Spread of the virus requires direct contact with infected secretions, that are then transferred to a mucosal surface (inside the mouth, genital tract, or lining of the eye) or into a person's bloodstream (through a break in the skin, needle stick, or blood transfusion). Spread between children can possibly occur by sharing mouthed objects or toys that have infected saliva on them. The virus can survive several hours on surfaces outside the body.

*How is it diagnosed?* Most people with CMV are not diagnosed because they show no symptoms. Diagnosis of the CMV virus can be made from cultures of infected fluids or by blood tests for the CMV antibodies.

*When should people with CMV be excluded?* Children who are known to have CMV do not need to be excluded, because the program probably has other children who have CMV.

*Where to report it?* There is no need to report CMV infection, as it is common and frequently occurs unrecognized and undiagnosed in the community.

### Special stop-spread information for CMV

Make sure that adults (especially pregnant women or women trying to become pregnant) always wash their hands after contact with children's urine, saliva, or blood. Women who work in child care programs who might become pregnant should consider finding out from their doctor if they have already had CMV or if they are at risk because they have never had it.

### Herpes simplex infections

*What are they?* Herpes simplex viral (HSV) infections are characterized by skin blisters or sores that can be very painful. Once a person is infected these viruses remain in nerve cells, and HSV tends to recur at the same places on the body again and again. There are two types of herpes virus—HSV type 1 (usually found in the mouth) and HSV type 2 (usually found on the genitals).

**HSV type 1** is extremely common. Usually the first infection occurs in childhood, is mild, and often unnoticed. It may come in the form of **gingivostomatitis**—fever accompanied by widespread painful ulcerations (sores) in the mouth. HSV usually recurs as cold sores—single or multiple blisters around the lip. Rarely, HSV can be spread by direct touching to cause infection on a finger (**herpetic whitlow**—painful recurrent blisters of a finger) or eye (**herpetic keratitis**—recurrent ulcerations of the cornea).

**HSV type 2** is the cause of most cases of genital herpes that occur primarily in adults and is sexually transmitted. The first infection is frequently unnoticed and without symptoms. However, it can also cause painful genital blisters and ulcers accompanied by fever and can last 2 weeks. Recurrence is common and usually comes in the form of localized, less painful ulcers that go away in days and are not accompanied by fever. Recurrence may also be asymptomatic.

Herpes of the newborn is most often caused by HSV type 2, and occurs when a newborn infant passes through an infected birth canal. The resulting illnesses range in severity from skin blisters to total body disease with death or severe brain damage. An infant who survives may have recurrent skin blisters due to HSV.

Herpes infections in children are generally caused by HSV type 1 and, while uncomfortable, are rarely serious. People who have severe eczema or immune system problems may have more severe infections with herpes.

*Who gets them and how?* HSV type 1 is most common in young children, whereas HSV type 2 (due to its sexual transmission) is more common in adults. HSV type 2 may be seen in children in unusual circumstances or as a result of sexual abuse. HSV is shed into the secretions of the blisters and ulcers. Spread of both HSV 1 and 2 requires direct contact of virus-containing secretions with a mucous membrane (inside the mouth, lining of the eyes, rectum, or genitals) or with broken skin (such as a cut).

Because herpes viruses can survive as long as 4 hours on surfaces, mouthed objects contaminated by virus-containing saliva can transmit infections of the mouth. It would be extremely unlikely, however, for an object such as a toilet seat to transmit the virus, since transmission requires contact with internal rectal or genital mucosa. It would also be unlikely for HSV from a child's mouth, skin, or genital lesion to cause genital herpes in another person, as transmission would require direct contact with the other person's genital area.

*How are they diagnosed?* Diagnosis is usually made based on the distinctive appearance of the blisters or sores. A doctor may also examine material under a microscope or do a special viral culture.

*How are they treated?* Antiviral therapy for HSV infections has recently become available. Generally speaking, this therapy is useful only for serious HSV infections (such as in the newborn, for infections of the brain or eye, or for certain cases of genital herpes). There is no evidence that these medicines are of any benefit to the common HSV infections in the mouth.

*When should people with HSV infections be excluded and allowed to return?*

- Exclude children or staff with open, oozing sores that cannot be covered. Exclude all cases of herpetic whitlow if the sores are not crusted. Do not allow staff with oral (mouth) blisters to care for children (since close physical contact might spread HSV). Assign them to administrative tasks, instead. **Do not exclude** children or staff with skin blisters (in locations other than the mouth or finger) that can be covered or with genital herpes.
- Allow returns as follows:
  —Children with oozing **mouth blisters** can return when blisters are crusted over.
  —Children or staff with **skin blisters** that cannot be covered can return when the blisters are crusted over.
  —Children or staff with **herpetic whitlow** can return when blisters are completely crusted over.

*Where to report them?* There is no need to report HSV infections (either type 1 or type 2) unless they occur in newborn babies.

### Special stop-spread information for HSV infections

Make sure that staff who may touch blisters on children wear gloves during diapering or changing of a dressing.

### Sexually transmitted diseases

*What are they?* Sexually transmitted diseases (including gonorrhea, syphilis, chlamydia, and genital herpes simplex, hepatitis B, and AIDS) are infections caused by bacteria, viruses, or parasites, that are transmitted by intimate sexual contact with infected secretions. CMV, hepatitis B, and AIDS, three viral infections discussed elsewhere in this chapter, can also be transmitted sexually because the viruses are present in genital secretions.

*Who gets them and how?* These diseases are primarily seen in sexually active adolescents and adults and are transmitted through intimate sexual contact. They are NOT spread through the air, by contact with objects such as toilet seats, or by casual contact. They are spread when infectious secretions come in direct contact with a mucosal surface (such as genitals). Some infections can be passed from mother to newborn during pregnancy or as the infant passes through an infected birth canal. These include gonococcal or chlamydial eye infections (ophthalmia neonatorum), herpes simplex of the newborn, congenital syphilis, CMV, hepatitis B, and AIDS.

Except in cases of newborn infants infected during pregnancy or the birth process, the presence of one of these infections in a child should raise the possibility of sexual abuse. (Refer to Chapter 14 for information about sexual abuse indicators and reporting requirements.) In children, CMV and hepatitis B are almost always transmitted by other mechanisms and should **NOT** be considered possible indicators of sexual abuse.

*How are they diagnosed?* Sexually transmitted diseases can be diagnosed by a variety of tests. Figure 17-15 reviews the symptoms, diagnosis, and treatment of the major sexually transmitted diseases.

*When should people with sexually transmitted diseases be excluded?* Do not exclude children who have sexually transmitted diseases. Make sure, however, that these children receive treatments appropriate to their infections and that investigations for possible sexual abuse are carried out.

Do not exclude staff members who have sexually transmitted diseases. Ask these adults to get appropriate treatment and counseling.

*Where to report them?* The following sexually transmitted diseases must usually be reported by the diagnosing health care provider directly to your state department of public health:

- gonorrhea
- syphilis
- chlamydial genital infection
- pelvic inflammatory disease
- granuloma inguinale
- lymphogranuloma venereum
- chancroid
- ophthalmia neonatorum
- neonatal herpes
- hepatitis B
- AIDS

If you suspect that occurrence of any of these diseases in a child was caused by sexual abuse, you must report these cases to the appropriate social service department.

### Special stop-spread information for sexually transmitted diseases

- Watch for signs of sexual abuse when changing or toileting children.
- Insist that staff and children wash hands after any contact with genital areas.

## Diseases spread through blood or other intimate body fluid contact—Hepatitis B and AIDS/HIV infection

Hepatitis B and AIDS (Acquired Immune Deficiency Syndrome)/HIV infection are two serious viral infections spread by contact with infected blood or other intimate body fluids. The viruses that cause these illnesses can be spread when blood containing the virus enters the bloodstream of another person. Spread can occur when infected blood comes in contact with a broken surface of the mucosa (such as the inside lining of the mouth, eyes, nose, rectum, or sex organs). This can also happen when the skin is accidentally or intentionally punctured by a contaminated needle. An infected mother can also transmit these infections to her newborn infant. Once these viruses enter a person's body, they may stay for months or years. This person may appear to be healthy but can spread the viruses.

### How to stop spread of diseases spread through blood contact

Even though these diseases spread through blood contact are more difficult to catch or transmit to another person than other diseases described in this chapter, you should **treat all blood and mucosal secretions as if they were contagious.** Make sure that you clean up all blood spills promptly and then sanitize all blood-contaminated surfaces with the bleach solution (Figure 3-1). If a person with hepatitis B or AIDS/HIV infection attends your program, use the bleach solution for all sanitizing and cleaning tasks. See additional specific instructions under each of these diseases.

### Hepatitis B

*What is it?* Hepatitis B is a viral infection of the liver. Symptoms of infection include fever, loss of appetite, nausea, jaundice (yellowing of the skin and whites of the eyes), and occasionally pain of the joints and a hivelike skin rash. Illness can range from infection without symptoms to the very rare event of rapid liver failure and death. As with hepatitis A infection, young children are less likely to be jaundiced or show symptoms of illness. Unlike hepatitis A infection, hepatitis B can cause chronic infection with persistent shedding of the virus into body secretions and blood in up to 10% of those infected. People with such chronic infections are called virus carriers. These people can develop chronic liver disease, cirrhosis with liver failure, and liver cancer, years after infection. An infected mother can transmit the infection to her newborn infant. Although these infants often show no obvious symptoms of hepatitis B, they have a high likelihood of becoming carriers.

*Who gets it and how?* Hepatitis B is transmitted when blood or body fluids containing the virus get onto skin or mucosal surfaces (inside the mouth, eyes, rectum, or genital tract). Hepatitis B infections

## Figure 17-15. Symptoms/diagnosis/treatment of major sexually transmitted diseases

### Gonorrhea

**Cause**

Bacteria (Neisseria gonorrhoeae)

**Symptoms**

Vaginal/rectal pus discharge or redness
Pain or pus during urination
Sore throat
Pus and eye discharge in newborn younger than 1 week old*

**Diagnosis**

Culture of appropriate area

**Treatment**

Antibiotics

### Chlamydia

**Cause**

Bacteria-like germ (Chlamydia trachomatis)

**Symptoms**

Vaginal/rectal pus discharge or redness
Pain or pus during urination
Pus and eye discharge in newborn younger than 1 one month*
Certain pneumonia syndromes in infants younger than 3 months*

**Diagnosis**

Culture or rapid test of scraping of infected area

**Treatment**

Antibiotics

### Syphilis

**Cause**

Spirochete bacteria (Treponema pallidum)

**Symptoms**

Painless, hard ulcer usually on genitals, with swollen groin glands
Body rash (symmetrical, brownish) with flu symptoms
Shallow ulcerations on mucosal surfaces (mouth)
Moist, gray genital warts
Syndrome of congenital syphilis*

**Diagnosis**

Blood test

**Treatment**

Antibiotics

### Herpes simplex type 2

**Cause**

Virus (Herpes simplex type 2)

**Symptoms**

Recurrent, painful, tiny blisters or ulcers, usually on the genitals
Swollen groin lymph nodes
Severe generalized disease of skin, brain, liver*

**Diagnosis**

Viral culture or scraping of infected area viewed under a microscope

**Treatment**

First (primary) infection: an antiviral ointment or oral medicine may be given
Recurrent infection: usually no treatment, occasionally oral antiviral medicine

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*Mother-to-newborn transmission

are more difficult to transmit than hepatitis A infections (which are spread via infected stool). Hepatitis B infections occur most frequently in people who have contact with other people's blood (such as laboratory technicians or health care providers who may accidentally puncture their skin with blood-contaminated needles; or intravenous drug abusers, who may share needles). People who have hepatitis B can spread the infection to their sexual contacts via infected genital tract secretions. Mothers with hepatitis B are at high risk for infecting their newborn babies. Transmission of infection in households occurs only rarely, in situations where there is continuous sharing of personal items (such as toothbrushes or razors) that may be contaminated with infected blood.

Although hepatitis B viruses have been found in almost all body fluids, only blood, genital fluids, and saliva have been found infectious (or able to spread the disease). Since spread of the infection requires contact with infected fluid through the skin or a broken mucosal surface, it cannot be transmitted by casual social contact (hugging or handshaking) or via food or water. Transmission in group programs for young children is unusual. If an infected person has behavioral or medical problems such as oozing skin sores, the risk is higher.

*How is it diagnosed?* Hepatitis B infection is diagnosed by a blood test.

*How is it treated?* There is no specific treatment for hepatitis B infection. Most often, the body's defense system successfully fights off the infection, and the person becomes immune. However, medical follow-up is important to prevent complications.

Recently a new vaccine for the prevention of hepatitis B has been licensed. This vaccine is highly effective and considered very safe, but is relatively expensive and must be given in three doses over 6 months. It is recommended for people who have never had hepatitis B (screening for prior infection by blood test is often recommended) and who have a high risk of exposure, such as health care workers, laboratory technicians, sexual contacts with people with acute hepatitis B, and infants born to infected mothers. People in programs for young children would not ordinarily be viewed as high risk.

If a person is exposed to hepatitis B through a needle stick, sexual contact with an acutely infected person, or a deep bite that has drawn blood, she or he should receive an injection of a special immunoglobulin as soon as possible to prevent infection. The vaccine series following the immunoglobulin injection is also recommended.

*When should people with hepatitis B be excluded and allowed to return?* A staff person ill with hepatitis B should stay home until she or he feels well and fever and jaundice are gone. A staff person with chronic hepatitis B infection who has open, oozing sores that cannot be covered should not attend until the skin sores are healed.

You **do not have to exclude** children who are carriers of the hepatitis B virus. However, a more restrictive environment may be desired for these children, because they may lack control of their body secretions, share items contaminated with secretions, and/or display behavior (e.g., being bitten) that may raise the risk of virus transmission.

Your decision to allow a child with acute hepatitis B or a child who is a carrier of the virus to attend your program depends on several factors, including

- the age of the child. (Children younger than 3 years are more likely to engage in behaviors, such as biting and chewing on objects, that would present some risk if the infected child were to be bitten, for example; children between 4 and 5 years are less likely to do so; school-age children would be viewed as similar to an adult unless high-risk behaviors were noted.)
- the developmental level of the child
- the behavioral patterns of the child
- the ability of the staff to closely supervise the child to avoid sharing of chewed objects with others

Your health consultant, the local board of health, and the state department of public health can help you make such decisions. **If you decide to allow a child with hepatitis B to attend, follow all stop-spread precautions carefully.**

*Where to report it?* Notify parents and staff about **acute hepatitis B infections** and report these cases to your health consultant and local board of health. **If your program has one or more known carriers of hepatitis B,** inform all staff of this fact and carefully train them about measures to prevent spread. Inform them of the availability of the vaccine. Strongly consider telling parents of other children in the same class and offer them information about hepatitis B, its prevention, and the availability of the vaccine. Your health consultant, your local board of health, and the state department of public health can help you in this process.

**It is vital that you respect the confidentiality of the medical records of the hepatitis B carrier(s) and not stigmatize the individual carrier(s).** Do not release the names of specific children to other parents, and in the affected classroom(s) use any precautions or procedures **for ALL children and staff.**

### Special stop-spread instructions for hepatitis B

- Make sure that all staff and children follow the general procedures for thorough handwashing and cleanliness.
- **Always treat blood as a potentially dangerous fluid** and follow the stop-spread sanitizing guidelines at the beginning of this section. If you know that a hepatitis B carrier attends your program, always take careful blood precautions.
- Do not allow sharing of personal items that may become contaminated with infectious blood or body fluids, such as toothbrushes, food, or any object that may be mouthed.
- Place disposable items contaminated with blood or body fluid in plastic bags in covered containers.
- Store clothing or other personal items stained with blood and/or secretions separately in a plastic bag to be sent home with the child for appropriate cleaning. Ask parents to wash and then **bleach** these articles.
- Clean surfaces or toys contaminated with blood or body fluids with the bleach solution (Figure 3-1) as soon as possible after they are contaminated. You can also sanitize these articles by boiling them for 10 minutes.
- Discourage aggressive behavior (biting, scratching).
- Use gloves when you clean up blood spills, especially if they are from a known hepatitis B carrier. Wash your hands well afterward.
- If a person receives a specific infectious exposure to a person with hepatitis B (such as a bite that causes bleeding), contact your local board of health and the exposed person's health care provider for advice. The exposed person may need to receive a preventive immunoglobulin injection and the vaccine series.
- If you enroll several children with hepatitis B, strongly consider having a vaccination program for non-immune employees and children, and discuss this action with your health consultant.

### AIDS/HIV Infections

HIV (human immunodeficiency virus) infections which include AIDS (Acquired Immune Deficiency Syndrome) and ARC (AIDS-related complex) are very serious viral infections. Because new information about HIV and AIDS is constantly being generated, it is important for you not only to read what is in this manual but also to keep up with new developments about these diseases. You should contact the AIDS coordinator at your state and local departments of public health for current information and guidance. Also, be aware of AIDS-related changes to laws or regulations that affect the operation of your program. If a child with known HIV infection or AIDS applies to your program, ask your state and/or public health department and the child's physician to help you decide if the child should attend, and if so, what procedures you should follow.

*What are AIDS/HIV infections and how are they transmitted?* AIDS is a disease that leaves an individual vulnerable to illnesses that a healthy immune system might otherwise overcome. It is caused by a virus, human immunodeficiency virus (HIV). Epidemiologic studies show that AIDS is transmitted primarily via intimate sexual contact, blood-to-blood contact, or from an infected mother to her baby. There is no evidence of casual transmission by sitting near, living in the same household with, or playing with an individual with clinical AIDS or evidence of infection with HIV.

The Centers for Disease Control (1985) have reported that none of the identified cases of HIV infection in the United States is known to have been transmitted in school, child care, or foster care settings or through casual person-to-person contact. Further, studies of the transmission of HIV among family members of patients infected with the virus have failed to demonstrate transmission outside of sexual contact or in utero exposure.

However, the risk of transmission of HIV **among preschool children and the developmentally disabled in a group setting** raises special **theoretical** considerations that are not relevant in older children or with adults. Because children in the birth through 3 years age group and the developmentally disabled may lack control of their bodily secretions or may display behavior such as biting, it may be necessary to require a more restrictive environment for these children until more is known about transmission of AIDS/HIV in these group settings.

*Recommendations about attendance by preschool children and developmentally disabled people who have AIDS or evidence of HIV infections*

- Children from birth through age 3 years, who have clinical AIDS **should not attend a group setting** because of their increased susceptibility to infection.
- Children ages 4 and 5 years and the developmentally disabled who have clinical AIDS or evidence of infection with HIV **may attend a group set-**

**ting UNLESS** they have skin eruptions or weeping lesions that cannot be covered, or are likely to be bitten by the other children. (In either of these cases, the child's physician and the program should collaborate to decide about the appropriateness of the child's attendance.)

- Siblings of children with clinical AIDS or evidence of infection with HIV virus **may attend group programs without any restrictions**.

*Other recommendations for programs enrolling children with AIDS/HIV infections*

- Protect all children and staff by strictly following special procedures for cleaning and for handling blood and body fluids.
- Protect children with HIV infection or AIDS from infections by communicable diseases (e.g., chicken pox or measles) by excluding them if there is an outbreak (until they are properly treated with hyper immune gamma globulin and/or until the outbreak no longer presents a threat).
- Protect the right to privacy of these children by maintaining confidential records and by giving medical information only to people with an absolute need to know.
- Provide in-service education for appropriate school personnel to ensure accurate information about AIDS.
- Help children with clinical AIDS or evidence of infection with HIV to lead as normal a life as possible.

## Vaccine-preventable diseases—Measles, mumps, rubella, polio, pertussis, diphtheria, and tetanus

Prior to the implementation of immunization programs, these seven diseases were a major cause of widespread illness, often with permanent medical complications and even death. The diseases were a problem especially for children, although adults were also affected. (Haemophilus influenzae type b infections and hepatitis B are now also preventable through recently licensed vaccines. These diseases and the vaccines are discussed in detail in previous sections.)

Some people believe that these diseases are no longer a problem in the United States or that children can't get them anymore. **However, cases of these diseases do occur still, particularly in non-immunized or inadequately immunized children and adults.** Children and staff in group programs are especially at risk because the children may be too young to be fully immunized and because the close contact that occurs in the group allows easy spread of any disease. In addition, programs that have a relatively young staff (born after the late 1950s and early 1960s) are at particular risk because this age group is too young to have gotten natural immunity from exposure.

### How to stop spread of vaccine-preventable diseases

- Make sure that all children are immunized as completely as possible for their age (see Figure 17-1).
- Make sure that all adults working in your program (including volunteers) have immunity to diphtheria, tetanus, measles, mumps, rubella, and polio. (Adult vaccination against pertussis is not recommended). Acceptable evidence of immunity in adults can be provided in several ways, that vary by the age of the adult and the specific disease, as listed here.

**Diphtheria/tetanus**
—documentation of completion of a primary series (three doses) within the past 10 years, or
—documentation of a primary series in childhood and regular boosters every 10 years since

**Measles/mumps**
—born before 1957
—documentation of vaccination with live measles vaccine on or after the first birthday
—documentation of physician-diagnosed measles
—laboratory evidence of immunity

(Vaccination for mumps is recommended for adults older than 20 years who are not sure they are immune.)

**Rubella**
—documentation of vaccination with rubella vaccine on or after the first birthday, or
—laboratory evidence of immunity

(A history of rubella, or even documentation of physician-diagnosed rubella, without laboratory confirmation, is not acceptable. Vaccination during pregnancy is generally not advised. Vaccination should be given after delivery.)

**Polio**
—born before 1964
—documentation of vaccination with a primary series (three or more doses) of polio vaccine

- Notify your local board of health if a documented case of measles, mumps, rubella, polio, diphtheria, tetanus, or pertussis occurs in your program. They will assist you in starting any necessary identification and vaccination of susceptible children and adults. They will also instruct you on procedures for closely watching for any additional cases and for notifying other parents.

**Measles**

*What is it?* Measles is a very communicable viral illness and is the most serious of the common childhood diseases. Usually it causes a brownish-red, blotchy rash, that begins on the face and spreads down the body for 3 days, accompanied by high fever, cough, runny nose, and watery eyes. The illness lasts 1 to 2 weeks and can be complicated by ear infections, pneumonia, and encephalitis (inflammation of the brain). It can also cause miscarriages or premature delivery in pregnant women.

*Who gets it and how?* Measles cases are generally limited to three groups.

- children younger than 15 months old (who are too young to have been immunized)
- those refusing vaccination
- adolescents and young adults who may have received an earlier ineffective measles vaccine prior to 1968 or who graduated from school prior to the mandatory measles vaccination law. (Adults born prior to 1957 are generally considered immune.)

Measles is spread by large infected droplets or direct contact with the nasal or throat secretions of infected persons. It can also be spread by inhaling air that has tiny infectious droplets from sneezes or coughs. It is one of the most readily transmissible communicable diseases. The communicable period is greatest **prior to** and **just after** rash onset.

*When should people with measles be excluded and allowed to return?* Exclude anyone with measles until at least 4 days after the appearance of the rash.

*Where to report it?* Notify parents and staff as well as your local board of health and your health consultant.

**Mumps**

*What is it?* Mumps is a viral infection that causes fever, headache, and swelling and tenderness of the salivary glands, particularly the gland at the angle of the jaw. This causes the cheeks to swell. Possible complications include meningitis (inflammation of the coverings of the brain and spinal cord), encephalitis (inflammation of the brain), deafness, and in adolescent or adult males, inflammation of the testicles. The virus may produce a miscarriage if a woman becomes infected during the first trimester of pregnancy.

*Who gets it and how?* Most adults older than 25 have been infected naturally and are probably immune. Mumps may occur in non-immunized children, or adolescents and young adults who graduated from school prior to laws requiring mumps immunization. The mumps virus is found most often in saliva. It is transmitted by direct contact or by droplet spread of the virus in the air through sneezes or coughs. The virus may also be found in urine. Mumps is most infectious 48 hours **prior** to the onset of symptoms.

*When should people with mumps be excluded and allowed to return?* Exclude anyone with mumps until 9 days after the onset of swelling or until the swelling has subsided (whichever is sooner).

*Where to report it?* Notify parents and staff as well as your local board of health and health consultant.

**Rubella**

*What is it?* Rubella (also called German measles) is a mild viral illness that causes a slight fever and (in about 50% of infections) a flat, red rash that begins on the face. The rash spreads to the rest of the body over the next 24 hours. The illness causes swelling of the neck glands—particularly those at the back of the neck. Adult women with rubella may experience swelling or aching of the joints that lasts about a week. Rarely, encephalitis (brain inflammation) or a temporary bleeding disorder (purpura) may occur, usually in adults.

The most serious problem with rubella is that if a pregnant woman becomes infected, her developing infant also can become infected. Stillbirth, miscarriage, or serious birth defects (e.g., heart defects, deafness, blindness, and mental retardation) can occur in the infant.

*Who gets it and how?* Rubella is most often seen in non-immunized children and in a susceptible group of adolescents and young adults who graduated prior to school rubella vaccination laws. The virus is spread by large droplets in the air (through sneezes or coughs) or by direct contact with infected nasal or saliva secretions. Direct contact with blood, urine, and stool during the infectious period can also spread infection.

*When should people with rubella be excluded and allowed to return?* Exclude anyone with rubella until 5 days after the onset of the rash.

*Where to report it?* Notify parents and staff as well as your local board of health and your health consultant.

**Polio**

*What is it?* Polio is caused by a virus and causes an illness that ranges in severity from a mild, unnoticed feverish illness to meningitis (inflammation of the covering of the brain and spinal cord), to paralysis and even death.

*Who gets it and how?* Polio cases occur mainly among non-immunized young children or members of groups that refuse immunization. The virus is spread by direct contact with infected stool and throat secretions (phlegm, mucus). People are most infectious during the first few days before and after the onset of symptoms.

*When should people with polio be excluded and allowed to return?* Exclude people who have polio for 1 week from the onset of the disease or until after the fever is gone, whichever is longer.

*Where to report it?* Notify parents and staff as well as your local board of health and your health consultant.

**Diphtheria**

*What is it and how is it treated?* Diphtheria is a very serious bacterial infection of the nose and throat. It causes a sore throat, swollen tonsils with a grayish covering, and swollen neck glands. It can lead to severe throat swelling that can block breathing. The bacteria also produce a toxin (a type of poisonous substance) that can cause severe and permanent damage to the nervous system and heart. Diphtheria is treated primarily with an antitoxin, along with antibiotics. Antibiotics are also given the carriers of the diphtheria bacteria.

*Who gets it and how?* Diphtheria occurs primarily among non-immunized or inadequately immunized people. People need booster doses of diphtheria toxoid every 10 years after finishing the childhood primary immunization series to maintain protection. The bacteria are spread by direct contact with discharge from the nose, throat, skin, eyes, or other sores of infected people. Articles or food contaminated with discharge can also spread infection.

*When should people with diphtheria be excluded and allowed to return?* Exclude all diphtheria patients and carriers of the diphtheria bacteria. They should receive appropriate treatment and not return until two cultures from nose, throat, or skin sores are negative for the bacteria. These cultures should be taken at least 24 hours apart after treatment is completed.

*Where to report it?* Notify parents and staff as well as your local board of health and your health consultant.

**Tetanus**

*What is it?* The tetanus bacteria (that live in soil) can enter the body through a cut or wound and produce a poisonous substance that causes the muscles to go into spasms. Paralysis and even death can result. Tetanus has also been called lockjaw.

*Who gets it and how?* Tetanus occurs almost exclusively in non-immunized or inadequately immunized people. People need booster doses of tetanus toxoid every 10 years after finishing the childhood primary immunization to maintain protection. Unlike the other vaccine-preventable diseases, tetanus is NOT spread from person to person. It occurs when the bacteria in soil or dust are introduced into the body through a wound.

*When should people with tetanus be excluded and allowed to return?* Tetanus patients may attend when they feel well enough to return.

*Where to report it?* Notify your local board of health and health consultant.

**Special stop-spread information for tetanus**

Make sure that you clean all cuts, scrapes, and puncture wounds well with soap and water.

**Pertussis (whooping cough)**

*What is it?* Pertussis is a very contagious bacterial infection of the respiratory tract. The disease begins with cold symptoms, and during 1 to 2 weeks develops into repeated attacks of severe coughing that can last 1 to 2 months. The whoop sound (that gets its name from the sound a child makes when trying to draw a breath after a coughing spell) may not occur, especially in young infants or adults. During the severe coughing stage, seizures or even death can occur, particularly in a young infant, due to a lack of oxygen. Antibiotic treatment will reduce the infectiousness of an ill person but may not improve symptoms once a person has developed a severe cough.

*Who gets it and how?* Cases generally occur in non-immunized or inadequately immunized children. Cases can also occur in adolescents and adults because immunity decreases with age and the vaccine does not always provide lifetime protection. These adults, who may have very mild symptoms, can spread the infection into a susceptible group of young children. Therefore, immunization of young children is important because the most serious effects of the disease are most common among young children. The bacteria are spread by direct contact with discharge from the nose or throat of an infected person, or by breathing infected droplets in the air where an infected person coughs. The period of greatest risk of spread is the early stage when it appears to be a cold.

*When should people with pertussis be excluded and allowed to return?* Exclude a person with pertussis until 3 weeks after the onset of cough, or 7 days after the initiation of appropriate antibiotic therapy. People with direct contact with a case of pertussis should receive antibiotic treatment to prevent the development or spread of the disease.

*Where to report it?* Notify parents and staff as well as your local board of health and your health consultant.

## Noncontagious infectious diseases—Otitis media, monilial infections, and tick-borne diseases

Some infectious diseases caused by bacteria, viruses, fungi, or parasites are not easily spread from person to person. Two of these noncontagious infections—otitis media (middle ear infection) and Candida (yeast infection)—occur frequently in young children. Tick-borne infections can also occur in young children.

### Otitis media (middle ear infection)

*What is it?* Otitis media is an infection of the part of the ear behind the eardrum. There is a small passageway (the Eustachian tube) from inside the throat to this middle ear. Bacteria and/or viruses can travel from the throat area through the Eustachian tube to the middle ear and cause an infection. When infection occurs, pus develops, pushes on the eardrum, and causes pain and often fever. Sometimes the pressure is so great that the eardrum bursts, and the pus drains out into the ear canal. Although this can frighten a parent, the child feels better, and the hole in the eardrum will heal over.

Untreated ear infections can spread to the mastoid bone just behind the middle ear and cause mastoiditis. Before antibiotics were available for treatment, mastoiditis was a serious problem. Today, the biggest problem from otitis media is the potential for hearing loss. Fluid may remain in an ear for as long as 6 months after an infection is gone. This is called serous otitis media.

*Who gets it and how?* Middle ear infections are common in children between the ages of 1 month and 6 years, and most common before age 3. Some children develop ear infections a few days after a cold starts. Some children have one infection after another, whereas others never have any. The tendency to have infections runs in families. The bacteria and viruses that cause otitis media start out in the throat. About half of the cases of otitis are bacterial and about half viral. It is impossible to tell which germ is causing the infection without inserting a sterile needle through the eardrum, pulling out some of the pus or fluid, and culturing it. This is somewhat difficult and done only for special reasons. In general, all middle ear infections are treated with antibiotics as if they were bacterial.

*When should people with ear infections be excluded and allowed to return?* Because ear infections themselves are not contagious, there is no reason to exclude a child with one.

*Special care notes for children who have frequent ear infections*

- Never use cotton swabs and never put anything smaller than your finger into a child's ear. Do not allow the child to do so, either.
- Do not feed or bottle feed infants lying on their backs—it is easier for the food or milk (with mouth germs) to run down into the Eustachian tube into the middle ear in that position.
- Be especially alert for any sign of hearing or speech problems. Refer the child to the family's health care provider or other community resources (see Chapter 9).

*Special care notes for children who have ear tubes*

- An ear tube creates a hole in the eardrum so fluid and pus may drain out and fluid will not build up. It usually stays in for 3 to 6 months.
- Since pus can drain out, water from the outside (that has germs in it) can also run into the middle ear easily. Therefore, you must be very careful that children with tubes do not get water in their ears. This usually means no swimming unless there are special earplugs and doctor's permission.
- Watch for any sign of any hearing or speech problems.

### Monilial (Candida) infections

*What are they?* Monilial infections are caused by a yeast (Candida albicans) and are very common in children in diapers. In the mouths of infected infants you will see white patches (called thrush) that look like milk curds, but cannot be wiped off. Babies rarely develop thrush after 3 to 4 months of age.

Diaper rashes caused by monilial infections look different and start as very red, raised, round spots. Often there will be a larger spot with surrounding smaller ones. Sometimes the spots all run together, and what you see are large areas of beefy red, raised skin that are very sore and may even bleed. Occasionally, bacteria will invade this raw skin and set up a secondary infection with ooze or pustules.

*Who can get them and how?* These infections are particularly common in diapered children, but adults can get thrush in their mouths or a monilial rash in their groin or other moist areas. They are very mild infections in healthy people and almost everyone gets exposed. Yeast organisms that cause monilial infections are everywhere. Although they can be spread from one person to another, usually people catch it from themselves—the organisms are already on their body, waiting for the right conditions. When skin is wet and a little raw (such as in diaper and groin areas), the yeast can invade the skin and start spreading. Yeast infections can also occur after treatment with antibiotics.

*How are they treated?* The child's health care provider will prescribe medication (drops for mouth, cream for the diaper area).

*When should children with monilial infections be excluded and allowed to return?* If children have diaper rashes that last more than 1 to 2 days, ask their parents to see health care providers for diagnosis and treatment. You do not need to exclude children with these infections.

### Tick-borne diseases

*What are they?* These are several diseases, including Lyme Disease and Rocky Mountain Spotted Fever, that are spread to people by the bite of an infected tick.

**Lyme Disease (LD)** is caused by a form of bacteria and is spread to people by a tiny deer tick. In Lyme Disease cases, symptoms can begin with a skin rash characterized by large, red, doughnut-shaped welts. Other symptoms are similar to those of flu and can include headache, fever, chills, muscle aches, and stiff neck. Symptoms generally appear from 1 to 3 weeks following a tick bite. Some patients, even if untreated, will recover from Lyme Disease without complications. However, approximately half of all LD patients develop a chronic form of the disease and have repeated episodes of painful swelling in the joints. In rare cases, Lyme Disease sufferers may develop facial paralysis or heart problems. Early diagnosis is important. If patients are treated early with appropriate antibiotics, this disease can be a mild illness and later complications can be avoided.

**Rocky Mountain Spotted Fever** is carried by a large and more readily seen tick called the dog tick. Symptoms usually begin with a rash appearing first on the wrists and ankles and spreading to other parts of the body. Other symptoms include a high fever, chills, and severe headache, and usually appear 3 to 10 days after a tick bite. The disease can be effectively treated with antibiotics.

*Who gets them and how?* Anyone who is bitten by an infected tick can get them. Ticks are most commonly found in brushy, wooded, or tall grassy areas. They are **not** found on open sandy beaches. The deer tick is very small, no larger than the size of a period on a printed page. During the tick's life cycle, it may feed on an infected animal, usually a mouse. In later stages of the cycle, it clings to vegetation and is spread by direct contact to the skin of a passing animal or person. The bite of the tick can then spread the bacteria to the new host. The greatest chance of being infected is while walking barelegged through brush or tall grass, May through August. **It is important to remember that not all ticks carry Lyme Disease or Rocky Mountain Spotted Fever. Thus, a tick bite does not necessarily mean that disease will follow, and prompt removal of a tick will lessen any chance of disease transmission.**

*How are they diagnosed?* Diagnosis of Lyme Disease is based primarily on recognition of the typical symptoms of LD such as the characteristic skin rash. Atypical cases, or cases presenting with only later stage complications of LD, are difficult to diagnose. In these people, a blood test looking for antibody to the bacteria is often helpful. The diagnosis of Rocky Mountain Spotted Fever is based on typical symptoms and can also be confirmed with a blood test.

*How are they treated?* Oral antibiotic treatment is helpful early in the illness and often prevents late complications.

*When should people with tick-borne diseases be excluded and allowed to return?* There is no need to exclude a child or adult.

*Where to report it?* Report a diagnosis of LD, Rocky Mountain Spotted Fever, or other tick-borne illness to your local board of health. Notify all parents and staff of a case of tick-borne illness so that parents will watch for ticks as well.

If any child is bitten by a tick during the day, notify the parents of that child so they can inform their health care provider. Tell them what the tick looked like. If the child develops the symptoms described, particularly the skin rash and/or flu-like symptoms, ask the parents to see a health care provider promptly for evaluation and treatment.

*How to prevent tick-borne diseases.* You should take these precautions during and after spending time in brushy, wooded, or tall grassy areas.

- Wear long-sleeved shirts and long pants. Keep shirt tails tucked securely into pants and pant legs tucked tightly into socks. Wear sneakers or hiking boots instead of open sandals. Wear light-colored clothing. (Ticks are dark in color and will be easier to see against a light background.)
- Conduct daily tick checks. Ticks are most often found on the thigh, flank, arms, underarms, and legs, and are very small. Look for new "freckles."
- If you find a tick, remove it immediately. Deer ticks are very small and hard, about the size of a pinhead. They are orange-red or black depending upon their stage of growth, and prefer to attach themselves to a human host under the hair. Dog ticks are larger, ranging from 1/10 to 1/4" in length. They are brown and also prefer to attach themselves under the hair or on protected parts of the body. **To remove a tick,** use tweezers to grip the tick body firmly and pull it straight out. If using fingers, place a protective covering between your fingers and the tick, and wash your hands afterward. Wash the bitten area with soap and water.

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# 18

# Care of the mildly ill child

The care of ill children in group programs generates controversy. This issue can be viewed from many perspectives, including the child's needs, the parent's need to work, the staff's ability to cope and to give the necessary attention, and the cost of serving ill children.

According to the American Academy of Pediatrics, as stated in *Health in Day Care,*

> The center should have a written policy concerning the management of sick children. It should be conveyed in writing at the time a child is registered. This policy, arrived at after consultation with health care providers, should take into consideration the physical facilities and the number and qualifications of the center's personnel. The decisions involved in developing policies are extremely difficult. It must be recognized that children do become ill at unpredictable times. Working parents often are not given leave for children's illnesses. Centers many not have sufficient space or personnel to care for sick children properly. Home care for sick children is expensive.
>
> If an infant or child becomes ill during the hours she or he is in child care, the parent(s) should be notified. To keep the infant or child in the child care program even temporarily, there must be adequate quiet space separate from the rest of the children where the sick child can be watched and given appropriate care. Staffing levels must be adequate to care for the sick child. Personnel must have sufficient training to recognize the child who requires prompt medical attention. Most states have laws requiring reporting of specific communicable diseases when they occur in a public facility. Child care personnel should be familiar with these requirements and promptly report the designated diseases. Child care staff members becoming ill with gastrointestinal or skin infections or who develop temperatures greater than 101° F. should be excused from child care as quickly as possible. Sick leave policy should be as liberal as possible to prevent personnel from exposing children to infection. (1987, pp. 65–66)

This AAP standard provides a starting point for looking at the issue of group care of ill children.

## Basic issues for decision making

### Set a flexible policy

Many health policies concerning the care of ill children have been based upon common misunderstandings about contagion, risks to ill children, and risks to other children and staff. Current research clearly shows that certain ill children **do not** pose a health threat. Also, the research shows that keeping certain mildly ill children at home or isolated at the program **will not** prevent other children from becoming ill. Many children shed viruses before they are obviously sick and, for gastrointestinal infections, even after they seem perfectly well. For both respiratory and gastrointestinal infections, they can spread the illness before they develop symptoms. Children receiving antibiotics for a specific bacterial infection usually are not contagious after a day's treatment.

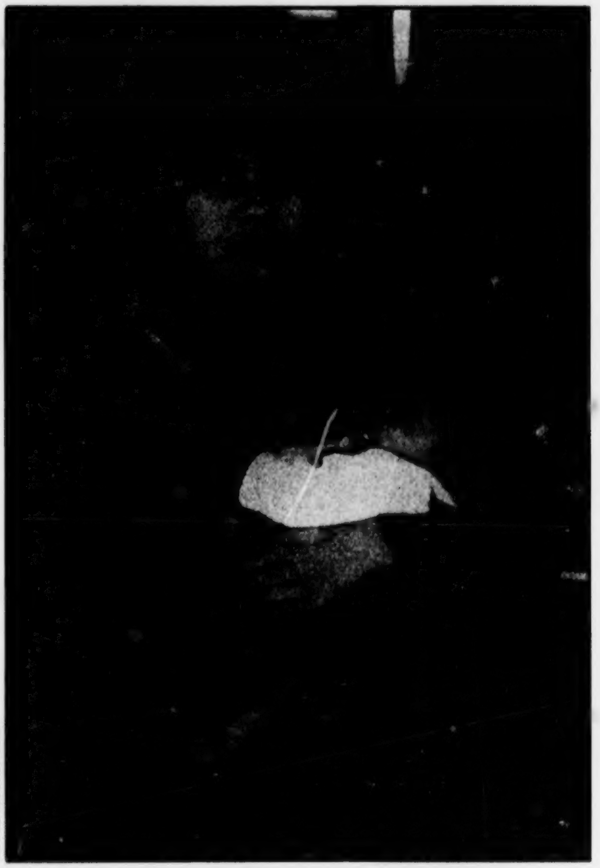
Obviously, seriously ill children should not be in a group. However, based on the above facts, there is no medical reason to exclude children who are mildly ill or who are being treated. Except in special programs, children with active diarrhea should be cared for at home. Unless children are uncomfortable, medical experts do not recommend exclusion of children with chicken pox either, because they have already exposed everyone before their symptoms appear.

Appropriate reasons to exclude mildly ill children are

- the child's disease is highly communicable and previously unexposed, susceptible children might be exposed
- the child does not feel well enough to participate, and/or
- the staff is not able to adequately care for sick and well children

Decisions must be made on a case-by-case basis. There is no **medical** justification for a policy that sets arbitrary cutoffs such as, "Any child with a temperature higher than 100° F. may not remain at the center."

The basic question is, Can the child participate with **reasonable comfort** and receive adequate, appropriate care without interfering with the care of the other children? One child who has a fever and cough may still have a high energy level, good appetite, and good mood. Another child may be droopy, whiny, uninterested in any activity, and very unhappy. **Every case is different and should be decided individually by staff and parents together using guidelines and procedures developed in consultation with health professionals.** The focus of policies for all children should be on what conditions and symptoms the program can **include and manage.** All other conditions and symptoms should be excluded.



Rick Reinhard

*Every case of caring for a mildly ill child is different and should be decided individually by staff and parents together using guidelines and procedures developed in consultation with health professionals.*

### Issues for programs to consider

When you need to decide whether to keep a mildly ill child at your facility, ask these questions:

- Are there sufficient staff (including volunteers) to change the the program for a child who needs some modifications, such as quiet activities, staying inside, or extra liquids?
- Are staff willing and able to care for a sick child (wiping a runny nose, checking a fever, providing extra loving care) without neglecting the care of other children in the group?
- Is there a space where the mildly ill child can rest? Is there a space that might be used as a get well room so that several children could be cared for at once? Is the child familiar with the staff?
- Are parents able or willing to pay extra for sick care if other resources are not available, so that you can hire extra staff as needed?

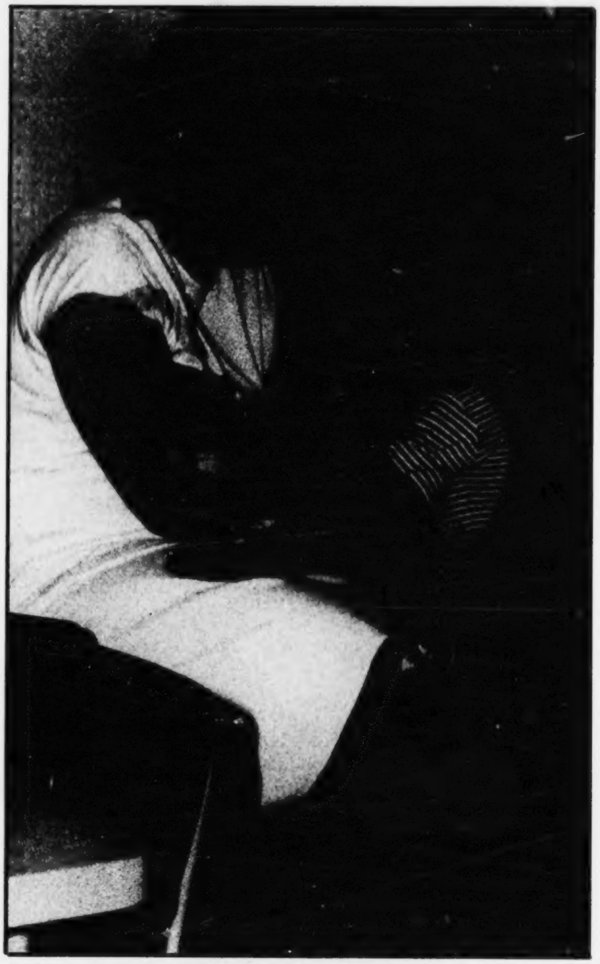
### Issues for parents to consider

When parents need to decide whether or not to send a child to the group program, they must weigh many facts, such as how the child feels (physically and emotionally), the program's ability to serve the needs of the mildly ill child, and income/work lost by staying home. Lost work in many cases means lost income, but it may also mean the loss of a job. For low-income families, this is a particularly difficult problem.

Although parents may honestly try to consider all the facts and to decide what is best for the child, this is hard to do when the facts are fuzzy. A child may awaken cranky but show no signs of illness. Or the child may have vomited after dinner the night before but slept well and awakened cheerful. Or the child may have an unexplained fever but seem absolutely fine. In these situations parents need to use their best judgment very early in the morning. Understandably, they make mistakes sometimes; but having standard rules will not necessarily solve the problem.

### Keep the communication lines open

A child's parents should always talk with staff in the morning about any mild illness that occurred the night before. This process should include face-to-face contact when the child is dropped off. If there is no opportunity for personal contact, the parent should write a note or complete the symptom record (see Figure 18-1). When the child leaves, staff must let the family know what happened during that day—preferably in written form. Simple information about activity level, appetite and food intake, nap time, and bowel movements can be invaluable to the family and to the doctor who may be called for advice later in the evening. Written reports about a child's illness from child care staff help to overcome the parent's natural tendency to miss some of the details when picking up the child at the end of the day (see Figure 18-1. Symptom record).



Subjects & Predicates

*When you greet children in the morning (preferably before parents have left), give each child a quick health check-up.*

### Conduct a daily health check

When you greet the children in the morning (preferably before parents have left), give each child a quick health checkup. This does not have to be a big deal! Just as you would notice a new haircut or a new pair of sneakers, you can be attuned to

- activity level (sluggish, sleepy, or whatever)
- breathing difficulties
- skin color
- severe coughing
- rashes
- swelling or bruises
- discharge from nose, ears, or eyes
- sores
- general mood (happy, sad, cranky)

If you have concerns about how a particular child looks or feels, discuss them with the parent right then. Perhaps the parent needs to take the child home. Perhaps you feel strongly that the child should leave. If you decide that the child will remain, be sure to discuss how you will manage the child and at what point you will call the parent. Note that it is the program's decision, not the parent's, whether the program will accept responsibility for the ill child from the parent. If the child stays all day, make sure you let the parent know what happened during the day (see Figure 18-1).

### Know what to do when a child appears ill

When you discover a seriously ill or injured child, use your emergency procedures.

If a child appears **mildly** ill, take the child aside, encourage rest, and assess the situation. **Remember that you are not expected to diagnose illness.** Report the symptoms you have observed to the proper person(s)—the parent(s), the director, the health staff person (if any) or health consultant, and/or the child's health provider. When you report the symptoms, follow your program's procedures and be as specific as possible. Note the following:

- symptom(s)
- when it began/how long it has lasted
- how much
- how often

## Figure 18-1. Symptom record

Name of child ____________________ Date __________

Symptom ____________________

When did it begin? ____________________

How long has it lasted? ____________________

How much? ____________________

How often? ____________________

Behavior change ____________________

Temperature ____________________

How much fluid and food intake in the past 12 hours? ____________________

How much urine, bowel movement, vomiting in the past 12 hours? ____________________

Associated symptoms—runny nose, sore throat, cough, vomiting, diarrhea, rash, stiff neck, trouble voiding, pain, itching, etc.) ____________________

Exposure to new foods, soaps, insects, animals, medications ____________________

Anyone else sick with whom child has been in contact? If so, who and what is sickness? ____________________

Complicating illness—asthma, sickle-cell anemia, diabetes, allergy, emotional trauma ____________________

What has been done so far? ____________________

Name of person completing form ____________________

- behavior change
- temperature
- other

(See Figure 18-1 on p. 282.)

Please see Chapter 9 for more information about health observations.

Take these general steps when a child becomes ill:

- keep the child comfortable
- observe the child and report and document the symptoms
- call the parent (or emergency contact)
- decide if the program can care for the child

Each child's family should identify at least two emergency contact people who are usually available to take the child home when the parent cannot be reached or is not available. Be sure these two contacts are in the child's record, and test their phone numbers occasionally to be sure they are current. Testing phone numbers is most easily incorporated into the office routine if you divide the number of children in the program by the number of working days in 6 months (approximately 120) and test that number of phone contacts every day.

## Common minor illnesses

Most programs will need to provide at least **temporary** care of ill children even if their general policy is to send sick children home. If children become ill during the day, use the following guidelines to help you manage their illnesses and keep them comfortable.

### Guidelines for fevers

Fever is a common symptom for young children. Many parents (and the public in general, including teachers) have unrealistic fears about fevers. In fact, fevers are rarely harmful, and treatment is not always necessary. An above-average body temperature can be caused by many things including strenuous exercise, time of day (temperature rises in late afternoon), infection, environment (a hot room, a hot day, or being bundled up), or individual variations.

*Fever* is generally defined as a temperature of 100° or more whether taken orally, rectally, or in the armpit (axillary). A fever of 105° F. is considered high, although in general, the height of the fever does not correlate to the seriousness of the illness. How sick a child acts is what counts.

Fever is often the child's body's response to infection. Fever may even be helpful, and there is a growing trend to treat it less aggressively. It is a symptom, not a disease, and is not itself dangerous below 106° F. Many children with temperatures of 104° F. or even 105° F. have infections that are basically not dangerous. Keep in mind that infants and young children tend to run higher fevers than adults. Whether or not the temperature can be brought down with fever reducing medicine does not relate to the severity of the illness. Some serious illnesses are associated with fevers that come down and some mild illnesses with high fevers that won't budge.

Figure 18-2 provides instructions for taking children's temperatures. These were prepared for use with a standard thermometer and include cleaning techniques. You may wish to use **disposable thermometer covers** to make good sanitation easier or **digital thermometers** that provide fast, accurate readings and are unbreakable, inexpensive, and readily available.

When a child has a fever

- Offer small amounts of liquid often, but avoid citrus juice or milk, that may upset the stomach. Clear liquids such as water, flat soda, gelatin, broth, and apple or grape juice are best. (Clear liquids are those you can see through when you hold them up to a light.)
- When the fever is 100° to 103° F., take off layers of clothing.
- When the fever is higher than 103° F., strip the child down to underwear or diaper.
- When the fever is 104° F. or higher, give the child a **tepid to warm** sponge-down. (Water should be warm enough to be comfortable and avoid shivering. As long as the water is cooler than the body, the heat of the child's body will go from the hot skin, taking body heat with it into the water, lowering the temperature.) Do **NOT** use alcohol wipes or rubs.
- Give acetaminophen (e.g., Tylenol, Tempra, Panadol) **only** if you have a parent's authorization and a physician's order. This can be a standing order, written into your health policies with a consent form signed by the parent at enrollment.
- **Call (or have parents call) a doctor for fever in an infant 6 months of age or younger. This call is *critical* for any child younger than 2 months.**
- Keep in mind that children who **DO** have serious infections act sick and may present one or more of these symptoms
  —unusual drowsiness or excessive sleep
  —loss of alertness

## Figure 18-2. How to take a child's temperature

### Preparation

Shake the thermometer until the mercury line is below 95° F. To avoid breakage, shake it above something soft.

### Where to take the temperature

- In children younger than 4 to 5 years: axillary (armpit) temperature for screening; if axillary temperature is higher than 99° F., check with a rectal temperature.
- In children older than 5 years: oral (by mouth) temperature.

#### Taking axillary (armpit) temperatures

- Place the tip of the thermometer in a dry armpit.
- Close the armpit by holding the elbow against the chest for 5 minutes.
- If you're uncertain about the result, recheck it with a rectal temperature. After the newborn period, axillary temperatures are not reliable. Use this method for screening purposes only.

#### Taking rectal temperatures

- Have the child lie stomach down on your lap.
- Lubricate the end of the thermometer and the child's anal opening with petroleum jelly.
- Carefully insert the thermometer about 1" but never force it.
- Hold the child still while the thermometer is in and press the buttocks together.
- Leave the thermometer inside the rectum for 2 to 3 minutes.

#### Taking oral temperatures

- Be sure the child did not recently drink a very cold or warm drink.
- Place the thermometer tip under the right side of the tongue.
- Have the child hold the thermometer in place with the lips and fingers (not the teeth).
- Have the child breathe through the nose with the mouth closed.
- Leave the thermometer inside the mouth for 3 minutes.
- If the child can't keep the mouth closed because the nose is blocked, take an axillary temperature.

### Reading the thermometer

Determine where the mercury line ends by turning the thermometer slightly until the line appears. If this is difficult for you, practice.

### Cleaning the thermometer

- Wash the thermometer with cold water and soap. (Hot water will crack the glass or break the thermometer.) A cracked thermometer should be thrown away.
- Rinse the thermometer with cold water.
- Dry and wipe it with rubbing alcohol or immerse it in the bleach solution. Then let it air dry.
- Shake down the thermometer and put it back in its case.

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Adapted from Schmidt, 1984.

—fast or different breathing
—very sick appearance
—refusal to eat or drink
—irritability
—refusal to play
—complaints about pain
—excessive crying

The most significant sign of serious illness is a child who looks and acts very ill.

**Febrile seizures.** Approximately 4% of children who experience fevers will have a febrile (associated with fever) seizure. Because these seizures are rarely harmful, and they are generally not preventable, they should not be cause for undue worry. Most febrile seizures occur as the temperature is rising, before you even realize the child has a fever. Febrile seizures are usually brief (less than 15 minutes) and stop by themselves. Children who are likely to have such seizures are those who have had one before the age of 3 years.

If a child has a history of febrile seizures and develops a fever, you should try to bring down the fever quickly by doing the following:

- Remove the child's clothing.
- Apply cool, thin cloths (such as dish towels or cloth diapers) to the face and neck. OR, sponge the body with warm water, cooler than the body temperature, in a tub.
- If the child is awake and can swallow medicine, give the appropriate dose of acetaminophen **if you have a standing order from the child's physician and parental permission.**

Febrile seizures are unusual and rarely have permanent effects. If a child has a seizure of any kind, it probably is a febrile seizure. You should follow your emergency procedures for seizures. All children who have a seizure for the first time should be seen by a physician.

### Guidelines for colds

- Try to keep room temperature at or lower than 70° F.
- Use a cool mist humidifier to keep the air moist during winter. Do not add anything to it. Do **not** use steam vaporizers. The new ultrasonic humidifiers are better than previous types.
- Raise the mattress or cot under the head and chest for sleeping. Do not use pillows because they tend to flex the head on the chest, making breathing more difficult. Put something under the mattress instead.
- Offer lots of clear liquids.
- Assist the child by helping to blow/wipe nose. **Wash your hands afterward.**
- Remove mucus from babies' noses before they eat. Use a soft, rubber bulb with a soft, narrow tip to suck out (aspirate) mucus for children who cannot blow their noses. Ask parents to send an individual aspirator, and use it only for the appropriate baby. (A 3 oz. ear syringe works very well for this purpose.)
- Let the child rest. She or he may need less strenuous activities or more sleep.
- Don't force the child to eat.

### Guidelines for vomiting and nausea

- Stop solid food.
- Offer clear liquids—water, flat cola or ginger ale (shake bottle or stir in glass to remove the bubbles), gelatin, broth. **Do not force child to drink,** but offer liquids often.
- Offer liquids in very small amounts: 1 to 2 oz. (or 2 to 4 tbs.) every 5 to 15 minutes. If a tbs. of fluid is vomited, reduce the amount given each time to a tsp.
- Offer frozen juice or ice chips to help soothe the child.
- Advise parents to give only clear liquids for 24 hours and to go slowly on solids for the next day or until the child is completely recovered.
- Give plain, low-salt crackers; dry, plain cookies or toast; or rice cereal if the child asks for food.
- Call the parent.
- Ask the parent to call the doctor when a baby younger than 6 months is vomiting.

### Guidelines for diarrhea

**One loose stool does not mean that a child has diarrhea.** Some children get diarrhea when they take antibiotics. Others may have loose stools for a long time after recovering from an infectious gastrointestinal disease. However, you should carefully watch a child with even one loose stool and take precautions.

*Diarrhea* is

- an increase in the number of stools over what is normal for that person

**and**

- stools that are unformed—loose/watery; take the shape of the container they are in. (Exception: Breast-fed babies have stools that are **normally** loose.)

Children with diarrhea that is easily contained in the diaper but no other symptoms **do not need to be sent home or excluded** if you can take appropriate precautions. A child with large, loose stools or both diarrhea and fever or another symptom of disease should be sent home (see section on infectious diarrheal diseases in Chapter 17 for details).

If the child with diarrhea stays, or if the child is waiting to be picked up by parents, the following guidelines for care should be followed.

- Offer clear, dilute liquids (see vomiting section). Liquids high in sugar (colas, apple juice, grape juice) should be diluted.
  —**For infants:** 1 to 2 oz. at a time, every 15 minutes or so.
  —**For preschool children:** 2 to 4 oz. at a time, every 15 minutes or so.
- Avoid any milk except breast milk. (The sugar in full strength juice and milk can make diarrhea worse.)
- If the child acts hungry, offer a binding, bland diet (e.g., rice, noodles, oatmeal, dry cereal, crackers, low-sugar gelatin, mashed banana, applesauce, peanut butter, hard cheese, yogurt).
- **If the baby is younger than 6 months, ask the parent to call the doctor.**

Although vomiting and diarrhea are generally considered mild illnesses, they can sometimes lead to **dehydration,** a more serious condition. Dehydration is an excessive loss of water and nutrients from the body. **Watch for these symptoms.**

- decreased frequency and amount of urinating
- few or no tears
- a sticky or dry mouth, and/or
- thirst

### Guidelines for constipation

Constipation is present when a child has excessively hard bowel movements that cause pain or are accompanied by mucus or blood. A child who has infrequent bowel movements is not constipated if the stool appears normal when it is passed. Normal bowel patterns may vary from twice a day to once or twice a week. When the stool is hard it usually means the child is not drinking enough fluid to keep up with the body's needs or does not have enough roughage (fiber) in the diet. If a child is constipated be sure that you discuss the problem with the parents so that together you can decide what to do.

To help reduce the hardness of stools, begin by increasing fluid intake, especially juices. Have the child drink at least 32 oz. (four medium glasses) of fluid each day, divided into frequent, small amounts. Try to have the child eat fruits such as apricots, pears, peaches, and prunes—fresh, dried, or canned in their own juice—twice a day. Encourage the child to eat bran cereals; celery and carrots (because they have fiber that holds fluid in the intestine to keep stools soft), and leafy, green vegetables such as lettuce, spinach, greens, and green and yellow beans that provide roughage. Limit binding foods such as bananas, apples, and high-fat dairy products. If these measures do not work, consult a doctor.

### Rashes

Although rashes are usually not symptoms of serious illness, people tend to worry about them because unusual skin conditions are so easily seen. While you will not diagnose or decide on treatment for rashes, you should supply parents with detailed information for them to report to their physician, who will want to know the following:

- Is the rash red (blood colored) or pink?
- Is the skin warm to the touch?
- Is the rash raised or flat? Pinprick size or blotchy? Dry or blistery?
- Where on the body was the rash first noted? How has it changed since then?
- Has the child had a recent injury or exposure to infection, drugs, or chemicals?
- Does the child look or act sick in any other way?
- Has the child had this rash before?
- Has the child been in contact with someone who has this rash?

Solid red, warm areas that are spreading may be caused by infection. Many infections that affect the whole body are associated with rashes. (Please refer to Chapter 17 for details.)

Many rashes look alike; sometimes even the doctor cannot make a definite diagnosis. The best clues are provided by any other symptoms accompanying the rash and by knowing what's going around.

Although most rashes are more troublesome than dangerous, there is a group of rashes associated with severe and life-threatening illness. These rashes look like little blood spots or bruises under the skin. Children may develop little blood spots around their faces and necks from crying hard or vomiting; but when this type of rash appears elsewhere on the body, without being explained by trauma, a health professional should be called immediately. The rashes from spontaneous bleeding into the skin signal serious disturbances in the body's bleeding control systems. Spontaneous blood-red spots or bruises without trauma should be addressed as a medical emergency. Fortunately, these illnesses occur infrequently.

Take these steps to promote good skin health.

- Rinse the skin with water to remove food and urine.
- Soap should be used only when you need to remove stubborn sticky or greasy material; follow with a thorough rinsing with plain water.
- Avoid prolonged exposure to wetness or stool.
- Wear the least amount of clothing needed to keep warm.

In general, you should avoid special skin products unless they have been requested by a health professional. Many products are heavily perfumed and, in fact, may create skin problems (e.g., dry skin or diaper rash). Some creams are very difficult to wipe off. Even the chemicals in premoistened, disposable wipes can cause trouble. The less you do to the skin, the better.

**Diaper rash.** Diaper rash is the result of a combination of irritation from rubbing of moist surfaces on the skin, chemical action of stool and urine on the skin, and wetness for prolonged periods. The ammonia odor in the diaper area comes when bacteria on the skin break down urine. To care for diaper rash, you should take the following steps:

- Treat the irritated skin. When a rash is present
  —Let the baby sleep without a diaper and plastic pants during naps.
  —Provide a cool sitz bath (at least 15 minutes to give time for deep cooling and contraction of blood vessels).
- Neutralize the ammonia, and make it hard for the bacteria on the skin to grow:
  —Put vinegar (2 to 3 tbs.) in a sinkful of water for sitz baths, 1/2 cup in the bathtub. Vinegar is a mild acid that works against the ammonia and prevents bacterial growth. Bathing also cuts down the need for rubbing the child's sore bottom to clean off stool and urine.
  —Make the urine more acid by having the child drink acidic fruit juice—cranberry is good (citrus less effective).
  —Increase child's intake of liquid because bacteria do not grow well in diluted urine.
- Suggest to parents that if a diaper is used **at night,** they should do the following to keep the urine away from the skin:
  —Use a zinc oxide ointment (such as Desitin) or petroleum jelly as a barrier between the skin and stool and/or urine. Make sure the child is clean and dry before applying.
  —Use a "diaper doubler" insert inside a regular diaper or an extra-absorbent diaper at night.
- Keep stools away from the child's skin since stools contain broken down bile that is like a detergent and is irritating. Change the child right away and wash child's bottom well with a little soap and lukewarm water. For a small infant, this rinsing can be done easily over the sink. Do not run water from the tap directly onto an infant's skin because a sudden surge of hot water from the tap can scald the child. You must wash and sanitize the sink after this type of use.
- **Avoid talcum or baby powder. It can be inhaled into the lungs.**

**Heat rash.** Heat rash is also known as prickly heat. Small red bumps usually occur on the neck, upper chest, and back of the head. To help manage heat rash

- Do not overdress child.
- Wash and dry the child's skin, especially between skin creases.
- Sponge and dry the area with cool tap water often.
- **Do not use baby powder.**

### Guidelines for teething

Teething may be painful and cause children to be cranky. Take these steps to comfort the child.

- Provide something hard and/or cold to bite on (a very cold, large carrot; a bagel; a teething biscuit; or a safe, teething-ring toy).
- Rub the child's gums with a **clean** finger or an ice cube. (Wash your hands before and after doing this.)

### Guidelines for sunburn

Young children are more likely to get sunburned than adults but everyone should avoid prolonged skin exposure to sun. Sun causes aging and changes that can lead to skin cancer in later life. Certain areas such as the face, shoulders, and back of knees are more likely to burn than other areas. For children who are susceptible to burn, protect these areas with one of the many sunblocks available. Ask the parents to provide the sunblock and written consent for its use. The number on the sunblock indicates how many times the normal exposure time the block will provide protection. Use sunblocks with number 15 or more. Do not apply suntan or sunscreen lotions to broken skin.

Because it takes several hours for a sunburn to show, watching for reddening of the skin is not a dependable way to tell when a child has been in the sun too long. **By the time you notice any change, it is too late.** The sun's rays are most intense from 11 a.m. to 2 p.m. Reflections of the sun's rays from water and sand increase sunburn dangers. Cloudy days can fool you; clouds won't stop the sun from burning. **It is a good idea on most summer days to plan for playtime in the shade, frequent fluid intake, and skin cooling.**

When a child has a sunburn, medications should not be applied to the skin without a doctor's recommendation. There is no **cure** for sunburn, but the pain and itching that accompany a burn can be treated with a cool bath or cold compresses applied three or four times a day for 10 to 15 minutes at a time. Severe burns may be accompanied by intense pain, blistering of the skin, nausea, chills, and fever. If a child has these symptoms, ask the parents to consult their physician.

### Guidelines for heat exhaustion and dehydration

After prolonged exposure to high temperatures and high humidity, children may have one or more of these symptoms of heat exhaustion:

- pale and clammy skin
- heavy sweating
- fatigue
- weakness
- dizziness
- headache
- nausea
- muscle cramps
- vomiting
- fainting

Avoid heat exhaustion and dehydration by encouraging children to drink liquids and cool off frequently. Provide small amounts of clear liquids at least every 2 hours to help restore fluids that the body has lost through evaporation. Achieve quick and sanitary cooling by having children play under a sprinkler or by using cool water on paper towels to remove the perspiration and oil from their skin.

Thirst is not a **good** indicator of dehydration, because a child can become dehydrated before becoming thirsty. Check a child's frequency of urination and urine color (concentration) to determine fluid needs. Normally, the urine of a child should be pale yellow or colorless, and urination should occur every 2 or 3 hours. Dark yellow (concentrated) urine is a sign the body is not well enough hydrated to be able to make dilute (light colored) urine.

When a child (or adult) has symptoms of heat exhaustion, the first thing to do is to move the person to a cool and shaded area. Then contact the parent and ask that the child's health care provider be called immediately.

## How to give medication

Almost all children, at one time or another, need medication. It is reasonable to expect that parents will ask you to give medications either for a chronic problem, for a mild illness, or as needed for a temporary discomfort.

Early childhood professionals are **not** required to give medication to children. If you do not want to be responsible for giving medication, you can help parents to set up a schedule for giving medications only at home. Parents should consult with their doctor; sometimes medicines can be given in different forms (liquid, pill, capsule) and/or a varying number of times a day (e.g., morning and bedtime versus three times a day). If a parent works near your facility, you may ask the parent to come during the day to give the medication, if necessary.

If your program accepts responsibility for giving medications, make certain that you follow all applicable regulations. **Typical** regulations for administration of medication are

- Prescription or nonprescription medications will not be administered to a child without the written order of a physician that indicates the medication is for that specific child.
- No medication, whether prescription or nonprescription, will be administered to a child without written parental authorization (Figure 18-3).
- Written records of the administration of prescribed medication to children will be kept and will include the time and date of each administration, the name of the staff member administering the medication, and the name of the child.
- All medicine will be stored in child-resistive safety containers, labeled with the child's name, the name of the drug, and the directions for its administration. Any unused medication will be disposed of or returned to the parent(s). Note: All prescribed medications must, by law, be dispensed in child-resistive packaging unless the purchaser specifically requests otherwise. Those who work with children should monitor compliance at the pharmacy so all medications in their possession are safely packaged.

Some additional practical guidelines for giving medications are

- Train all staff who are responsible for giving medications. Have a physician or nurse describe the specific procedures to be used.
- Have parents ask the pharmacist who fills the prescription to give them a small, extra **labeled** bottle to bring to your program.

## Figure 18-3. Parent permission to administer medication and log form

Name of child ______________________________

Date ______________ Name of medication ______________

Date prescribed ______________________________

Date last dose due ______________________________

### For parent to complete

I, ______________________________ (parent or guardian) give permission to

______________________________ (name of authorized child care staff)

to administer ______________ (dose) of ______________ (name of medication) to my child,

______________________________ (name of child) at approximately

______________ (time[s] dose due) on ______________ (dates and days)

for ______________________________

______________________________ (reason for medication).

Possible side effects to watch for with this medication include ______________

______________________________

The name and phone number of the prescribing physician: ______________

______________________________

### For staff to complete

Is the permission form (above) completed? ______________

Is the medication in a safety-cap container? ______________

Is the original prescription label on the medication container? ______________

Is the name of the child given above on the container? ______________

Is the date on prescription current? (Within the month for antibiotics and within the expiration date for medications which are so labeled; within the year otherwise?) ______________

**Figure 18-3 cont. Parent permission to administer medication and log form**

## Medication Administration Record

| Day | Date | Dose | Staff Signature |
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- Keep a medicine log sheet posted at the spot where you give medication to the child (e.g., on refrigerator) so you won't forget to write down the exact time and date. Put this log sheet in the child's folder after the course of medication ends.
- Be sure you receive very specific instructions about how the medicine should be given (e.g., before or after meals, with a full glass of water after the medication, tilting head). Most prescription labels do not have this information.
- Learn the possible side effects of the medication and inform the parent immediately if you observe any. Do not give more medication without the approval of the parent or child's physician.
- Always read what the label says about storage; some drugs need to be refrigerated. Avoid storing medication in warm, wet, or lighted places.
- **ALWAYS READ THE LABEL CAREFULLY BEFORE YOU GIVE ANY MEDICINE; BOTTLES OFTEN LOOK THE SAME.** Be sure that the child's name is on that bottle, because often several children may be taking the same medicine. As an extra precaution, put medication in a bag labeled with the child's name in large letters.
- Keep medicines in a locked cabinet or out of reach of children. Find a way to secure medicines that are kept in the refrigerator.
- Be sure that you do not leave medicine out unless adult supervision is available. When you answer the telephone or leave the room, put the medication away first, or take it with you. A child can take an overdose in seconds.
- Never refer to medicine as candy or something else children like. They may try to get more of it when unsupervised.

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# 19

# Models for the care of sick children

When young children become ill they need adequate rest, appropriate diet, medications as ordered, and appropriate physical and emotional support.

Because every child is bound to become sick at times, it is crucial that options for sick child care be discussed at the time a child is first enrolled in a group program. Many parents have not thought ahead about what they will do if the child becomes ill and cannot attend the group.

In some cases, employers will have personnel policies that allow a parent to provide care for a sick child at home. Paid time, within limits, can be given to the parent to support this option. Employers should be encouraged to develop flexible policies that consider the fact that family illness is unavoidable. However, when care by the parent is not possible, there are a variety of substitute sick child care models.

## General guidelines

There are some practices of care that relate to all models of programs for the care of sick children. Consider these basic needs:

- training for providers in first aid, sick care, infectious diseases, child development, and CPR
- suitable environment, including sink and bathroom nearby
- appropriate storage for medications
- careful hygiene of the sick care area
- emergency procedures established
- plans for contacting parents
- medical backup
- use of disposable towels and tissues
- materials for quiet activities for the child
- a cool air (preferably ultrasonic) vaporizer, for winter
- a method for laundering items such as bedding

## Care for sick children in group programs

The issue of sick child care is an emotionally charged one. It challenges some very basic notions about caring for children and the fine line between parent responsibilities versus staff responsibilities. While it may be difficult to handle even mildly ill children, you should consider some of these models as a way to meet this very real need for children and families.

### Care at the child's own program

The advantage of both of the following options is that ill children can be cared for in their familiar environment by adults they already know and trust.

**Get well area of the classroom.** This model requires use of a small area of the classroom where a child can rest or play quietly. It may be as simple as a cot in a quiet area. The area needs to be in view of an adult for supervision and frequent contact. The child may choose to participate in some group activities, while using the get well area as a home base. Ideally, a volunteer or floating adult will look after the child as needed, stay indoors when the others are outside, and provide additional physical and emotional support.

**Get well room.** This model could be considered when a small separate space is available. At least one adult needs to be present at all times; an ideal ratio is one adult to no more than two or three sick children. The room should be equipped with a comfortable resting place; quiet activities (e.g., reading, playing records, and table toys); and easy means for providing food, liquid, and medication. You may want to have a regular volunteer or extra staff person on call. This person may be someone who also substitutes for staff and should be teacher-qualified if she or he is alone with children.

### Care in programs for sick children

This model requires a separate facility specifically designed for ill children. The facility may be independent, or in some cases, sponsored by a regular program. Because the program for sick children is separate, the children may not be familiar with the staff, the environment, or other children. It is important, therefore, to have children visit before they become ill and intermittently so that each child can have a positive introduction to the staff and faculty.

This type of medical infirmary for ill and recovering children may serve the **physical** needs of children very well, but it is least likely to support children **emotionally,** because both the environment and the staff are unfamiliar. The program may also be far from home, which could mean a long, uncomfortable ride for the sick child.

## Care for sick children in family day care programs

### Care in the child's regular family day care program

Home-based child care is often more flexible and informal than larger group programs. A mildly ill child may be included if the provider is willing and able to handle minor illnesses.

### Care by an independent program for ill children

Some home-based child care is designed specifically to care for ill children. This home could be separate from any agency. While this setup could work very well, it is likely that no regulations or administrative support exists to monitor the care.

### Care by satellite homes linked to a group program or agency

In this model, the program or agency (such as a hospital) is responsible for placement of children, training of providers, and payroll. The providers can be used as substitutes in the sponsoring agency when they are not giving sick care. Because of this linkage, children can become familiar with the providers before being cared for in the home environment. Because all of the children come from the same program, all the ill children come from the same germ pool; therefore, new illnesses are rarely passed around.

## Sick care services at home

### Care by known adults

Children may be cared for in their own homes by adults such as a family member, friend, or family baby sitter. This situation is probably one of the most comfortable options for the child, both emotionally and physically. The adult should be informed about the nature of the illness and given complete instructions for care.

### Informal network of caregivers

Some programs keep a list of all available adults who wish to care for ill children at the child's home. Especially good resources are students (in early childhood or health fields), substitute staff persons, and older or retired persons. These caregivers should be given detailed instructions for care.

### Home health agencies/baby-sitting services

Home health agencies may have workers who care for ill children. This service tends to be quite expensive but has the advantage of providing reliable and trained staff. Some communities have developed specific child care programs for sick young children with the help of public funding or employer support to help pay the high fees.

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Work/Family Directions. (1985). Sick child care. (Unpublished working paper). Boston: Wheelock College.

# Appendix 1

## National resources for health and safety information

See also Figure 13-1 (p. 194) for a list of resources for children with special needs.

### National organizations

**American Academy of Pediatrics,** P.O. Box 927, 141 Northwest Point Blvd., Elk Grove Village, IL 60009 (also state chapters).

**American Association for Health, Physical Education and Recreation,** 1201 16th Street, N.W., Washington, DC 20006.

**American Association for Maternal and Child Health,** 116 S. Michigan Avenue, Chicago, IL 60603.

**American Automobile Association,** 1712 F Street, N.W., Washington, DC 20006 (highway and pedestrian safety).

**American Cancer Society, Inc.,** 219 E. 42nd Street, New York, NY 10017.

**American Dental Association,** Bureau of Dental Health Education, 211 E. Chicago Avenue, Chicago, IL 60611.

**American Dietetic Association,** 430 N. Michigan Avenue, Chicago, IL 60611.

**American Fire Insurance Companies,** Engineering Department, 80 Maiden Lane, New York, NY 10007.

**American Heart Association,** 7320 Greenville Avenue, Dallas, TX 75231. (Has materials, resources, and training related to heart health, including nutrition, exercise, and CPR certification).

**American Medical Association,** Department of Community Health and Health Education, 535 N. Dearborn Street, Chicago, IL 60610.

**American Optometric Association,** Department of Public Information, 243 N. Lindbergh Blvd., St. Louis, MO 63141.

**American Public Health Association,** 1015 15th Street, N.W., Washington, DC 20005.

**American Red Cross,** 17th and D Streets N.W., Washington, DC 20006 (contact local chapter first).

**Association for the Care of Children's Health,** 3615 Wisconsin Avenue, N.W., Washington, DC 20016.

**Centers for Disease Control,** 1600 Clifton Road, N.E., Atlanta, GA 30333.

**Child Care Employee Project,** P.O. Box 5603, Berkeley, CA 94705.

**Child Care Health Project,** 8374 Fresno Avenue, La Mesa, CA 92041.

**Council for Exceptional Children,** Information Services, 1920 Association Drive, Reston, VA 22091.

**Child Care Law Center,** 625 Market Street, Suite 815, San Francisco, CA 94105.

**Children's Defense Fund,** 122 C Street, N.W., Washington, DC 20001.

**Clearinghouse on the Handicapped,** Room 338-D, Hubert H. Humphrey Building, 200 Independence Avenue, S.W., Washington, DC 20201.

**Environmental Protection Agency (EPA),** 401 M Street, S.W., Washington, DC 20406.

**ERIC/EECE, Educational Resources Information Center, Elementary and Early Childhood Education,** University of Illinois, 805 W. Pennsylvania Avenue, Urbana, IL 61801.

**Health Insurance Council,** 488 Madison Avenue, New York, NY 10022.

**Heart Disease Control Program,** Division of Special Health Services, United States Public Health Service, Department of Health and Human Services, Washington, DC 20025.

**Johnson & Johnson Health Care Division,** New Brunswick, NJ 08903 (first aid and dental health).

**Metropolitan Life Insurance Company,** School Health Bureau, Health and Welfare Division, 1 Madison Avenue, New York, NY 10010 (health, safety, and first aid).

**National Academy of Sciences (NAS),** National Research Council, 2101 Constitution Avenue, N.W., Washington, DC 20418 (food and nutrition).

**National Association for the Education of Young Children,** 1834 Connecticut Avenue, N.W., Washington, DC 20009-5786.

**National Board of Fire Underwriters,** American Insurance Company, 85 John Street, New York, NY 10038 (fire prevention education).

**National Center for Education in Maternal and Child Health,** 3520 Prospect Street, N.W., Washington, DC 20057.

**National Commission on Safety Education,** National Education Association, 1201 16th Street, N.W., Washington, DC 20036.

**National Congress of Parents and Teachers,** 700 N. Rush Street, Chicago, IL 60611 (child health and safety).

**National Dairy Council,** 6300 N. River Road, Rosemont, IL 60018-4233.

**National Health Council,** 1790 Broadway, New York, NY 10019.

**National Health Information Clearinghouse,** P.O. Box 1133, Washington, DC 20013-1133.

**National Institutes of Health (NIH),** U.S. Public Health Service, Department of Health and Human Services, Bethesda, MD 20892.

- Allergy and Infectious Diseases (NIAID)
- Arthritis, Diabetes, Digestive and Kidney Diseases (NIADDK)
- Cancer (NCI)
- Child Health and Human Development (NICHHD)
- Dental Research (NIDR)
- Eyes/Blindness (NEI)
- Heart, Lung and Blood (NHLBI)
- Neurological and Communicable Disorders and Stroke (NINCDS)

**National Institute of Mental Health (NIMH),** 5600 Fishers Lane, Rockville, MD 20857.

**National Passenger Safety Association,** 1050 17th Street, N.W., Suite 770, Washington, DC 20036.

**National Safety Council,** 444 N. Michigan Avenue, Chicago, IL 60611.

**Nutrition Foundation, Inc.,** 888 17th Street, N.W., Washington, DC 20036.

**Office of Child Development,** U.S. Department of Health and Human Services, P.O. Box 1182, Washington, DC 20013.

**Public Health Service (PHS),** Public Inquiries Branch, U.S. Department of Health and Human Services, Washington, DC 20201 (health and poison prevention).

**School Health Education Study,** 1507 M Street, N.W., Room 800, Washington, DC 20005.

**Sex Information and Education Council of the United States,** 1855 Broadway, New York, NY 10023.

**Society for Nutrition Education,** 1736 Franklin Street, Oakland, CA 94612.

**State Farm Insurance Companies,** Public Relations Department, One State Farm Plaza, Bloomington, IL 61701 (first aid and safety).

**United States Consumer Product Safety Commission (CPSC),** Room 336-B, 5401 Westbard Avenue, Bethesda, MD 20207.

**United States Department of Agriculture,** Agricultural Research Administration, Bureau of Human Nutrition and Home Economics, Washington, DC 20250.

**United States Department of Health and Human Services (DHHS),** P.O. Box 1182, Washington, DC 20013.

**United States Department of Labor,** Occupational Safety and Health Administration, (OSHA), Washington, DC 20013.

**United States Department of Transportation,** 400 7th Street, S.W., Washington, DC 20590.

## Health in child care

American Academy of Pediatrics. Committee on Early Childhood, Adoption and Dependent Care. (1987). Deitch, M.D., S.R. (Ed.). *Health in day care: A manual for health professionals.* Evanston, IL: Author.

Child Care Employee Project. (1984). *Health and safety resources for child care workers.* Berkeley, CA: Author. (Available from Child Care Employee Project, P.O. Box 5603, Berkeley, CA 94705)

Child Care Resource and Referral, Inc. (1984). *Health and safety—A first aid, safety, and medical information guide.* Rochester, NY: Author. (Available from Child Care Resource and Referral, Inc., 903 W. Center Street, Suite 200, Rochester, NY 55902)

Greater Minneapolis Day Care Association. (1983). *Child health guidelines: Health, nutrition, infants, and toddlers.* Minneapolis, MN: Author. (Available from Greater Minneapolis Day Care Association, 1006 West Lake, Minneapolis, MN 55408)

Gunzenhauser, N., & Caldwell, B. (Eds.). (1986). Group care for young children: Considerations for child care workers and health professionals, public policy makers, and parents. *Johnson & Johnson Baby Products Company, Pediatric Roundtable Series: 12.* New Brunswick, NJ: Johnson & Johnson.

Schloesser, P. (Ed.). (1986). *Health of children in day care: Public health profiles.* Topeka, KS: Kansas Department of Health and Environment.

King County Department of Health-Day Care Health Program. (1985). *Child day care health handbook.* Seattle, WA: Author. (Available from King County Department of Health-Day Care Health Program, Room 1406, Public Safety Building, Third and James, Seattle, WA 98104)

National Association for the Education of Young Children. (1984). *Accreditation criteria and procedures of the National Academy of Early Childhood Programs.* Washington, DC: Author. (Available from National Association for the Education of Young Children, 1834 Connecticut Avenue, N.W., Washington, DC 20009-5786)

Resources for Child Caring, Inc. (1980). *Health, safety, and first aid: A guide for training child care workers.* St. Paul, MN: Toys 'n Things Press. (Available from Resources for Child Caring, Inc., 906 North Dale, St. Paul, MN 55103)

Ross Laboratories. (1985). Day care. *Report of the Sixteenth Ross Roundtable.* Columbus, OH: Author.

U.S. Department of Health and Human Services. (1972). *Health services: A guide for project directors and health personnel* (DHEW Publication No. OHDS 78-31060). Washington, DC: U.S. Goverment Printing Office.

## Infectious diseases

American Academy of Pediatrics. Committee on Early Childhood, Adoption and Dependent Care. (1987). Deitch, M.D., S.R. (Ed.). *Health in day care: A manual for health professionals.* Evanston, IL: Author.

American Academy of Pediatrics Committee on Infectious Diseases. (1988). *Report of the Committee on Infectious Diseases* (AAP: "Red Book") (21st ed.). Elk Grove Village, IL: Author.

Bananas Child Care Information and Referral and Parent Support. (1980). *Sick child care guide for parents and child care providers.* Oakland, CA: Author. (Available from Bananas, Inc., 6501 Telegraph Avenue, Oakland, CA 94609)

Centers for Disease Control. (1984). *What you can do to stop disease in the child day care center* (Stock # 017-023-00172-8). Washington, DC: U.S. Government Printing Office.

Fredericks, B., Hardman, R., Morgan, G., & Rodgers, F. (1986). *A little bit under the weather.* Boston, MA: Work/Family Directions. (Available from Work/Family Directions, Inc., 9 Galen Street, Suite 230, Watertown, MA 02172)

Haskins, R., & Kotch, J. (1986). Day care and illness: Evidence, costs, and public policy. *Pediatrics, 77.*

Osterholm, M., Klein, J., Aronson, S., & Pickering, L. (1986). Infectious diseases in child day care: Management and prevention. *Reviews of Infectious Diseases, 8*(4). (Available in book form from University of Chicago Press, Journal Division, P.O. Box 37005, Chicago, IL 60637)

Resources for Child Caring, Inc. (1980). *Health, safety, and first aid: A guide for training child care workers.* St. Paul, MN: Toys 'n Things Press. (Available from Resources for Child Caring, 906 North Dale, St. Paul, MN 55103)

Sleator, E. (1986). *Infectious diseases in day care.* Urbana, IL: ERIC Clearinghouse. (Available from ERIC Clearinghouse, Unversity of Illinois, 805 W. Pennsylvania Avenue, Urbana, IL 61801)

## Child health

American Academy of Pediatrics. (1988). *Guidelines for health supervision* (2nd ed.). Elk Grove Village, IL: Author. (Available from American Academy of Pediatrics, Publications Department, P.O. Box 927, Elk Grove Village, IL 60009)

Boston Children's Medical Center, & Feinbloom, R.I. (1985). *Child health encyclopedia: The complete guide for parents.* New York: Delacorte Press/Seymour Lawrence.

Marotz, L., Rush, J., & Cross, M. (1985). *Health, safety, and nutrition for the young child.* Albany, NY: Delmar. (Available from the Department of Human Development and Family Life, University of Kansas, Delmar Publishers, Inc., 2 Computer Drive, W., Box 15-015, Albany, NY 12212.

Pantell, R.H., Fries, J.F., & Vikery, D.M. (1984). *Taking care of your children.* Reading, MA: Addison-Wesley.

Reinish, E.H., & Minear, R.E., Jr. (1978). *Health of the preschool child.* New York: Wiley.

## Child health curriculum

Brevis Corporation, 3310 S. 2700 East, Salt Lake City, UT 84105.
Very clever and appealing materials on handwashing for children and adults.

Harrison, D. D. (1974). *Health and safety for young children: Child involvement in personal health.* New York: Macmillan. (Available from Threshold Division, Macmillan Publishing Company, Inc., 866 Third Avenue, New York, NY 10022)

Hendricks, C., & Smith, C.J. (1982). *Hale and hardy helpful health hints: A comprehensive health education curriculum for Head Start programs.* Bowling Green, KY: Barren River District Health Department.

Kerr, A. (1985). *Health, safety, and nutrition early childhood curriculum.* Carson, CA: Lakeshore Curriculum. (Available from Lakeshore Curriculum Materials Company, 295 E. Dominguez Street, Carson CA 90749)

Miller, J. (1975). *Web of life: Health education activities for children.* (Available from Pennsylvania Department of Education, Bureau of Curriculum and Instruction, 8th Floor, 333 Market Street, P.O. Box 911, Harrisburg, PA 17108)

National Dairy Council. (1979). *Chef Combo.* Rosemont, IL: Author. (Available from National Dairy Council, 6300 N. River Road, Rosemont, IL 60018-4233)
Nutrition curriculum kit that includes puppets, games, and other activities.

National Highway Traffic Safety Administration. (1984). *We Love You—Buckle Up!* Washington, DC: Author. (Available from National Association for the Education of Young Children, 1834 Connecticut Avenue, N.W., Washington, DC 20009-5786)
A curriculum packet that contains a teacher's guide, a book for children, handouts to copy for parents, a poster, 36 stickers, and other information about child passenger safety.

Peterson, P. (1984). *Ready... Set . . . Grow!!: A comprehensive health education curriculum for 3–5 year olds.* St. Paul, MN: Peterson. (Available from Peterson Publishing, P.O. Box 75991, St. Paul, MN 55175)

U.S. Department of Health and Human Services. (1985). *Head Start dental health curriculum* (DHHS Publication No. OHDS 86-31535). Washington, DC: U.S. Government Printing Office.

Whicker, P. (1983). *Aim for health.* Winston-Salem, NC: Kaplan.

## Children with special needs

Black, E., & Nagel, D. (Eds.). (1982). *Physically handicapped children: A medical atlas for teachers* (2nd ed.). New York: Grune & Stratton.

Brooth, A., Donebad, P., & Maykut, P. (1981). *Mainstreaming children with a handicap in day care and preschool: A manual of training activities.* Madison, WI: Wisconsin Council on Developmental Disabilities.

Froschl, M., Colon, L., Rubin, E., & Sprung, B. (1984). *Including all of us: An early childhood curriculum about disability.* Mt. Rainier, MD: Educational Equity Concepts. (Available from Gryphon House, Inc., P.O. Box 275, Mt. Rainier, MD 02712)

U.S. Department of Health, Education and Welfare. (1972). *Day Care Series # 8: Serving children with special needs* (Stock # 1791-0176). Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services. (1978). *Mainstreaming preschoolers*. Washington, DC: U.S. Government Printing Office.

Children with orthopedic handicaps (Stock # 017-092-00034-1).

Children with visual handicaps (Stock # 017-092-00030-8)

Children with mental retardation (Stock # 017-092-00029-4)

Children with health impairments (Stock # 017-092-00031-6)

Children with hearing impairment (Stock # 017-092-00032-4)

Children with emotional disturbance (Stock # 017-092-00036-7)

Children with speech and language impairments (Stock # 017-092-00033-2)

Children with learning disabilities (Stock # 017-092-00035-9)

## Periodicals

*Child Care Information Exchange*, P.O. Box 2890, Redmond, WA 98073.

Monthly magazine for directors with regular health update column written by Susan S. Aronson, M.D. Articles address important child care issues and are extremely informative and well-written.

*Child Care News*, Child Care Resources Center, 552 Massachusetts Avenue, Cambridge, MA 02139. 617-547-1063.

Ten newsletters per year with excellent coverage of child care issues, including alternating column on health. Massachusetts oriented.

*Child Health Alert*, P.O. Box 338, Newton Highlands, MA 02161.

A monthly newsletter with summaries and comments on recent health research and issues. Written in a clear and understandable format. A good resource.

*Pediatrics for Parents*, 176 Mt. Hope Avenue, Bangor, ME 04401. 207-942-6212.

Excellent monthly newsletter with practical health information in an easy-to-read format. Includes summaries of research and helpful hints dealing with children. Appropriate for parents and staff.

Please refer to the list of organizations—nearly all of them have publications. Contact your local Child Care Resource & Referral Agency for other resources.

## First-aid resources

American Red Cross. (1979). *Standard first aid and personal safety* (2nd ed.). New York: Doubleday.

Good basic text with an emphasis on safety. Not very useful as a quick reference.

American Red Cross. (1979). *Advanced first aid and emergency care* (2nd ed.). New York: Doubleday.

Emphasis on first aid and transportation.

Aronson, S. (1988). *First aid in child care settings.* Washington, DC: American Red Cross.

Freeman, L. *What would you do if . . . A kid's guide to first aid.* (1983). Seattle, WA: Parenting Press. (Available from Parenting Press, 7750 31st Avenue, N.E., Seattle, WA 98115)

Emphasizes discussion of prevention and first-aid information for children.

Green, M. (1984). *A sigh of relief—The first aid handbook for childhood emergencies* (2nd ed.). NY: Bantam.

Rovertson, A.A. *Health, safety & first aid: A guide for training child care workers.* (1980). White Bear Lake, MN: Toys 'n Things Press. (Available from Toys 'n Things Press, Minnesota Curriculum Services Center, 3554 White Bear Avenue, White Bear Lake, MN 56110)

Lots of good information for teachers.

Upjohn Company. (1981). *First things first—Your first book about first aid.* New York: Author. (Available from Upjohn, 3rd Floor, 99 Park Avenue, New York, NY 10016.)

For children.

## Nutrition resources

Bershad, C., & Bernick, D. (1981). *Bodyworks: The kid's guide to food and physical fitness.* New York: Random House.

Brody, J. (1981). *Jane Brody's nutrition book.* New York: W.W. Norton.

Goodwin, M.T., & Pollen, G. (1980). *Creative food experiences for children.* Washington, DC: Center for Service in the Public Interest.

Massachusetts Department of Public Health. (1984). *Infant feeding policy.* Boston, MA: Author.

Natow, A., & Heslin, J.A. (1984). *No-nonsense nutrition for kids.* New York: McGraw-Hill.

Satter, F. (1983). *Child of mine—Feeding with love and good sense.* Palo Alto, CA: Bull.

U.S. Department of Agriculture, Food and Nutrition Service. (1985). *A planning guide for food service in child care centers* (FHS Publication No. 64). Washington, DC: U.S. Government Printing Office.

U.S. Department of Agriculture, & U.S. Department of Health and Human Services. (1985). *Nutrition and your health: Dietary guidelines for Americans* (2nd ed.). (Home and Garden Bulletin No. 232). Washington, DC: U.S. Government Printing Office.

Vonde, D., & Beck, J. (1980). *Food adventures for children.* Redondo Beach, CA: Plycon Press.

Wanamaker, N., Hearn, K., & Richarz, S. (1979). *More than graham crackers: Nutrition education & food preparation with young children.* Washington, DC: National Association for the Education of Young Children.

Winick, M. (1981). *Growing up healthy: A parent's guide to good nutrition.* New York: William Morrow.

Zeitlin, M., Connell, D., Schlossman, N., Rall, V., & Ryden, T. (1986). *Breastfed babies: Guidelines for the day care provider.* Weston, MA: Lactation Associates.

## Resources for health screening

### Vision

Broken Wheel Test. (Available from Burnell Corporation, 750 Lincolnway East, P.O. Box 4637, South Bend, IN 46634)

Preschool Vision Screening Package. (Available from The Preschool Enrichment Team, Inc., 276 High Street, Holyoke, MA 01040)
Includes pamphlets and a screening manual, plus the Broken Wheel test.

Snellen E (Tumbling E). (Available from National Society for the Prevention of Blindness, 79 Madison Avenue, New York, NY 10016)

# Appendix 2

## Children's picture books about health, nutrition, and safety

**Mary Renck Jalongo and Melissa Ann Renck—Compilers**

### Health care

Aliki. (1962). *My five senses.* New York: Harper & Row.

Berger, M. (1983). *Why I cough, sneeze, shiver, hiccup and yawn.* New York: Crowel.

Berger, M. (1985). *Germs make me sick!* New York: Crowell/Harper & Row.

Brandenberg, F. (1978). *I wish I was sick, too!* New York: Puffin.

Brown, M. (1979). *Arthur's eyes.* Boston: Little, Brown.

Brown, T. (1984). *Someone special, just like you.* New York: Holt, Rhinehart & Winston.

Brenner, B. (1973). *Bodies.* New York: E.P. Dutton.

Cole, J. (1984). *How you were born.* New York: Morrow.

Cole, J. (1985). *Cuts, breaks, bruises and burns: How your body heals.* New York: Harper/Crowell.

Cole, J. (1987). *The magic schoolbus at the waterworks.* New York: Scholastic.

DeSantis, K. (1985). *A doctor's tools.* New York: Dodd.

Howe, J. (1981). *The hospital book.* New York: Crown.

Isadora, R. (1985). *I hear.* New York: Greenwillow.

Isadora, R. (1985). *I see.* New York: Greenwillow.

Krementz, J. (1986). *Taryn goes to the dentist.* New York: Crown.

Marino, B.P. (1979). *Eric needs stitches.* Reading, MA: Addison-Wesley.

Oxenbury, H. (1983). *The checkup.* New York: Dial.

Oxenbury, H. (1986). *I hear.* New York: Random House.

Oxenbury, H. (1986). *I see.* New York: Random House.

Oxenbury, H. (1986). *I touch.* New York: Random House.

Peterson, J. (1977). *I have a sister, my sister is deaf.* New York: Harper & Row.

Rabe, B. (1981). *The balancing girl.* New York: Dutton.

Reit, S. (1985). *Some busy hospital!* New York: Golden Books.

Rockwell, A., & Rockwell, H. (1982). *Sick in bed.* New York: Macmillan.

Rockwell, A., & Rockwell, H. (1985). *The emergency room.* New York: Macmillan.

Rockwell, H. (1973). *My doctor.* New York: Macmillan.

Rockwell, H. (1975). *My dentist.* New York: Greenwillow.

Showers, P. (1975). *Hear your heart.* New York: Harper & Row.

Showers, P. (1980). *No measles, no mumps for me.* New York: Crowell/Harper & Row.

Silverstein, A. (1978). *Itch, sniffle and sneeze: All about asthma, hay fever and other allergies.* New York: Four Winds.

Steedman, J. (1974). *Emergency room: An ABC tour.* McLean, VA: Windy Hill Press.

Stein, S.B. (1974). *A hospital story: An open family book for parents and children together.* New York: Walker.

Trier, C.S. (1982). *Exercise: What it is, what it does.* New York: Greenwillow.

Wolf, B. (1980). *Michael and the dentist.* New York: Four Winds.

Zim, H.S. (1952). *What's inside me?* New York: Morrow.

## Foods and nutrition

Aliki. (1976). *Corn is maize: The gift of the Indians.* New York: Crowell/Harper & Row.

Carle, E. (1969). *The very hungry caterpillar.* New York: Philomel Books.

Cauley, L.B. (1977). *Pease porridge hot: A Mother Goose cookbook.* New York: Putnam.

Cooper, J. (1977). *Love at first bite: Snacks and mealtime treats the easy way.* New York: Knopf.

Degan, B. (1983). *Jamberry.* New York: Harper & Row.

de Paola, T. (1978). *The popcorn book.* New York: Holiday House.

Ehlert, L. (1987). *Growing vegetable soup.* New York: Harcourt Brace Jovanovich.

Gibbons, G. (1985). *The milk makers.* New York: Macmillan.

Hoban, R. (1964). *Bread and jam for Frances.* New York: Harper.

Lynn, S. (1986). *Food.* New York: Macmillan/Aladdin.

Pluckrose, H. (1986). *Think about tasting.* New York: Watts.

Rockwell, A., & Rockwell, H. (1982). *How my garden grew.* New York: Macmillan.

Rylant, C. (1984). *This year's garden.* New York: Bradbury.

Seixas, J.S. (1984). *Junk food.* New York: Greenwillow.

Seixas, J.S. (1986). *Vitamins: What they are, what they do.* New York: Greenwillow.

Sharmat, M. (1980). *Gregory the terrible eater.* New York: Four Winds.

Showers, P. (1985). *What happens to a hamburger.* New York: Harper/Crowell.

Smaridge, N. (1982). *What's on your plate?* Nashville, TN: Abingdon.

Spier, P. (1981). *The food market.* New York: Doubleday.

## Safety

Brown, M., & Krensky, L. (1982). *Dinosaurs beware! A safety guide.* Boston: Little, Brown.

Gibbons, G. (1984). *Fire! Fire!* New York: Crowell/Harper & Row.

Girard, L.W. (1984). *My body is private.* Niles, IL: Whitman.

McLeod, E.W. (1975). *The bear's bicycle.* Boston: Little, Brown.

Schick, E. (1980). *Home alone.* New York: Dial Press.

Smaridge, N. (1965). *Watch out!* New York: Abingdon.

Wachter, O. (1983). *No more secrets for me.* Boston: Little, Brown.

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